

NEWS PHONE Direct Dial and Telecommunication Network Access to
STN
NEWS WWW CAS world wide web Site (general information)

Enter NEWS followed by the item number or name to see news on that
specific topic.

All use of STN is subject to the provisions of the STN Customer
agreement. Please note that this agreement limits use to
scientific
research. use for software development or design or implementation
of commercial gateways or other similar uses is prohibited and may
result in loss of user privileges and other penalties.

* * * * * STN Columbus * * * * *

FILE 'HOME' ENTERED AT 13:44:59 ON 25 MAY 2004

=> file registry
COST IN U.S. DOLLARS
TOTAL
SINCE FILE

SESSION
FULL ESTIMATED COST
0.42
ENTRY
0.42

FILE 'REGISTRY' ENTERED AT 13:46:21 ON 25 MAY 2004
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.
COPYRIGHT (C) 2004 American Chemical Society (ACS)

Property values tagged with IC are from the ZIC/VINITI data file
provided by InfoChem.

STRUCTURE FILE UPDATES: 24 MAY 2004 HIGHEST RN 685504-43-2
DICTIONARY FILE UPDATES: 24 MAY 2004 HIGHEST RN 685504-43-2

TSCA INFORMATION NOW CURRENT THROUGH JANUARY 6, 2004

Please note that search-term pricing does apply when
conducting SmartSELECT searches.

Crossover limits have been increased. See HELP CROSSOVER for
details.

Experimental and calculated property data are now available. For more
information enter HELP PROP at an arrow prompt in the file or refer
to the file summary sheet on the web at:

<http://www.cas.org/ONLINE/DBSS/registryss.html>

=> \$ ^[SFGMALHI][FSVTI]DQVPFSVA/sqep
GAPS, WILDCARDS, AND BRACKETS ARE INVALID FOR "EXACT" SEQUENCE FIELD
CODES.

=> \$ ^[SFGMALHI][FSVTI]DQVPFSVA/sqsp
L1
II ^[SFGMALHI][FSVTI]DQVPFSVA/SQSP

Connecting via winsock to STN

Welcome to STN International! Enter x:x

LOGINID:sssptal653adk

PASSWORD:

TERMINAL (ENTER 1, 2, 3, OR ?):2

* * * * * welcome to STN International * * * * *

NEWS 1 Web page URLs for STN Seminar schedule - N. America
NEWS 2 "Ask CAS" for self-help around the clock
NEWS 3 JAN 27 Source of Registration (SR) information in REGISTRY
updated

NEWS 4 JAN 27 and searchable

NEWS 5 FEB 05 A new search aid, the Company Name Thesaurus,

available in

NEWS 6 MAR 03 CA/Caplus

number format

NEWS 7 MAR 03 MEDLINE and LMEDELINE reloaded

NEWS 8 MAR 03 MEDLINE file segment of TOXCENTER reloaded

NEWS 9 MAR 03 FRANCEPAT now available on STN

NEWS 10 MAR 29 Pharmaceutical Substances (PS) now available on STN

NEWS 11 MAR 29 WPIFV now available on STN

NEWS 12 MAR 29 New monthly current-awareness alert (SDI) frequency

in RAPRA

NEWS 13 APR 26 PROMT: New display field available

NEWS 14 APR 26 IFIPAT/IFIUB8/IFICDB: New super search and display

field

NEWS 15 APR 26 LITAlert now available on STN

NEWS 16 APR 27 NLDB: New search and display fields available

NEWS 17 May 10 PROUSDDR now available on STN

NEWS 18 May 19 PROUSDDR: One FREE connect hour, per account, in

both May

NEWS 19 May 12 and June 2004

NEWS 20 May 12 EXTEND option available in structure searching

REGISTRY

NEWS 21 May 12 Polymer links for the POLYLINK command completed in

NEWS 22 May 17 FRFULL now available on STN

NEWS EXPRESS

MARCH 31 CURRENT WINDOWS VERSION IS V7.00A, CURRENT

MACINTOSH VERSION IS V6.0C(ENG) AND V6.0JC(JP)

AND CURRENT DISCOVER FILE IS DATED 26 APRIL 2004

STN Operating Hours Plus Help Desk Availability

General Internet Information

Welcome Banner and News Items

```
=> d l1 l-11 ti,bib,abs
'TI' IS NOT A VALID FORMAT FOR FILE 'REGISTRY'
'BIB' IS NOT A VALID FORMAT FOR FILE 'REGISTRY'
'ABS' IS NOT A VALID FORMAT FOR FILE 'REGISTRY'
```

The following are valid formats:

Substance information can be displayed by requesting individual fields or predefined formats. The predefined substance formats are: (RN = CAS Registry Number)

```
REG - RN
SAM - Index Name, MF, and structure - no RN
FIDE - All substance data, except sequence data
IDE - FIDE, but only 50 names
SQIDE - IDE, plus sequence data
SQIDE3 - Same as SQIDE, but 3-letter amino acid codes are used
SQD - Protein sequence data, includes RN
SQD3 - Same as SQD, but 3-letter amino acid codes are used
SQN - Protein sequence name information, includes RN
CALC - Table of calculated properties
EPROP - Table of experimental properties
PROP - EPROP and CALC
```

Any CA File format may be combined with any substance format to obtain CA references citing the substance. The substance formats must be cited first. The CA File predefined formats are:

```
ABS -- Abstract
APPS -- Application and Priority Information
BIB -- CA Accession Number, plus Bibliographic Data
CAN -- CA Accession Number
CBIB -- CA Accession Number, plus Bibliographic Data (compressed)
IND -- Index Data
IPC -- International Patent Classification
PATs -- PI, SO
STD -- BIB, IPC, and NCL

IABS -- ABS, indented, with text labels
IBIB -- BIB, indented, with text labels
ISTD -- STD format, indented
```

```
OBIB ----- AN, plus Bibliographic Data (original)
OIBIB ----- OBIB, indented with text labels
```

```
SBIB ----- BIB, no citations
SIBIB ----- IBIB, no citations
```

The ALL format gives FIDE BIB ABS IND RE, plus sequence data when it is available.
The MAX format is the same as ALL.
The IALL format is the same as ALL with BIB ABS and IND indented, with text labels.

For additional information, please consult the following help

messages:

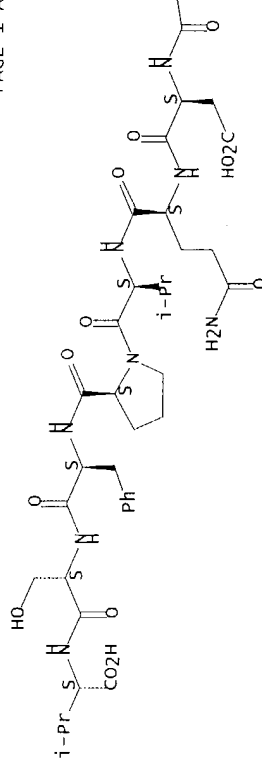
```
HELP DFIELDS -- To see a complete list of individual display fields.
HELP FORMATS -- To see detailed descriptions of the predefined
formats.
ENTER DISPLAY FORMAT (IDE):
ENTER DISPLAY FORMAT (IDE):end
```

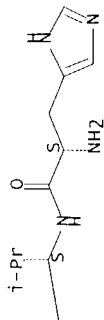
=> d l1

```
L1 ANSWER 1 OF 11 REGISTRY COPYRIGHT 2004 ACS on STN
RN 363172-62-7 REGISTRY
CN L-valine, L-histidyl-L-valyl-L-α-aspartyl-L-glutaminy-L-valyl-
L-
prolyl-L-phenylalanyl-L-seryl- (9CI) (CA INDEX NAME)
OTHER NAMES:
CN 18: PN: W00170767 SEQID: 17 claimed sequence
FS PROTEIN SEQUENCE; STEREOSEARCH
MF C47 H70 N12 O14
SR CA
LC STN Files: CA, CAPLUS, TOXCENTER, USPATFULL
DT.CA Caplus document type: Patent
RL.P Roles from patents: BIOL (Biological study); PREP
(Preparation); PRP
(Properties); USES (Uses)
```

Absolute stereochemistry.

PAGE 1-A





PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

=> index bioscience
FILE 'DRUGMONOG' ACCESS NOT AUTHORIZED
COST IN U.S. DOLLARS
TOTAL

SINCE FILE
ENTRY
34.15

SESSION
FULL ESTIMATED COST
34.57

INDEX 'ADISCTI, ADISINSIGHT, ADISNEWS, AGRICOLA, ANABSTR, AQUASCI, BIOBUSINESS, BIOCOMMERCE, BIOSIS, BIOTECHABS, BIOTECHDS, BIOTECHNO, CABA, CAPLUS, CEABA-VTB, CEN, CIN, CONFSCI, CROPB, CROPU, DISSABS, DDFB, DDFU, DGENE, DRUGB, DRUGMONOG2, ...' ENTERED AT 13:54:41 ON 25 MAY 2004

70 FILES IN THE FILE LIST IN STNINDEX

Enter SET DETAIL ON to see search term postings or to view search error messages that display as 0* with SET DETAIL OFF.

=> s l1

0* FILE ADISCTI
0* FILE ADISINSIGHT
0* FILE ADISNEWS
0* FILE AGRICOLA
0* FILE ANABSTR
0* FILE AQUASCI
0* FILE BIOBUSINESS
0* FILE BIOCOMMERCE
0* FILE BIOSIS
0* FILE BIOTECHABS
0* FILE BIOTECHDS

0* FILE BIOTECHNO
0* FILE CABA
0* FILE CANCERLIT
0* FILE CAPLUS
0* FILE CEABA-VTB
0* FILE CEN
0* FILE CIN
0* FILE CONFSCI
0* FILE CROPB
0* FILE CROPU
0* FILE DISSABS
0* FILE DDFB
0* FILE DDFU

=> file registry
COST IN U.S. DOLLARS
TOTAL

SESSION
FULL ESTIMATED COST
35.14

FILE 'REGISTRY' ENTERED AT 13:55:13 ON 25 MAY 2004
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.
COPYRIGHT (C) 2004 American Chemical Society (ACS)

property values tagged with IC are from the ZIC/VINITI data file provided by InfoChem.

STRUCTURE FILE UPDATES: 24 MAY 2004 HIGHEST RN 685504-43-2
DICTIONARY FILE UPDATES: 24 MAY 2004 HIGHEST RN 685504-43-2

TSCA INFORMATION NOW CURRENT THROUGH JANUARY 6, 2004

Please note that search-term pricing does apply when conducting SmartSELECT searches.

Crossover limits have been increased. See HELP CROSSOVER for details.

Experimental and calculated property data are now available. For more information enter HELP PROP at an arrow prompt in the file or refer to the file summary sheet on the web at:
<http://www.cas.org/ONLINE/DBSS/registryss.html>

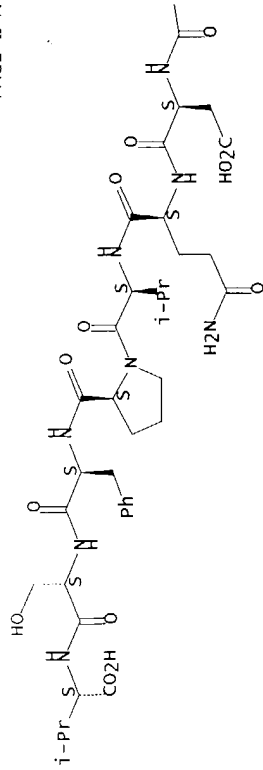
=> d l1

L1 ANSWER 1 OF 11 REGISTRY COPYRIGHT 2004 ACS on STN
RN 363172-62-7 REGISTRY
CN L-valine, L-histidyl-L-valyl-L- α -aspartyl-L-glutamyl-L-valyl-L-prolyl-L-phenylalanyl-L-seryl- (9CI) (CA INDEX NAME)
OTHER NAMES:
CN 18: PN: W00170767 SEQID: 17 claimed sequence
FS PROTEIN SEQUENCE; STEREOSEARCH

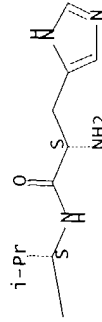
MF C47 H70 N12 O14
 SR CA
 LC STN Files: CA, CAPLUS, TOXCENTER, USPATFULL
 DT.CA Caplus document type: Patent
 RL.P Roles from patents: BIOL (Biological study); PREP
 (Preparation); PRP
 (Properties); USES (Uses)

Absolute stereochemistry.

PAGE 1-A



PAGE 1-B



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT
 1 REFERENCES IN FILE CA (1907 TO DATE)
 1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

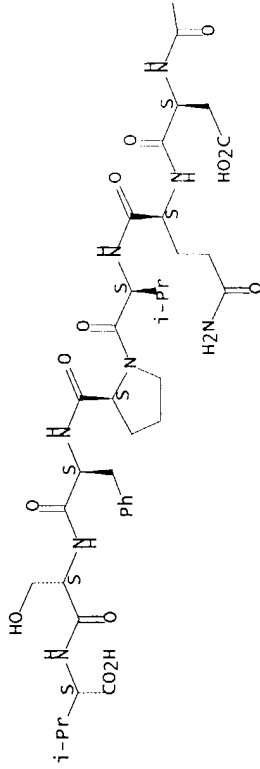
=> d 11 1-11

L1 ANSWER 1 OF 11 REGISTRY COPYRIGHT 2004 ACS on STN
 RN 363172-62-7 REGISTRY

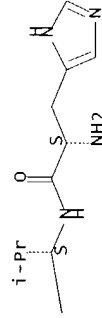
CN L-Valine, L-histidyl-L-valyl-L- α -aspartyl-L-glutamyl-L-valyl-L-
 L- prolyl-L-phenylalanyl-L-seryl- (9CI) (CA INDEX NAME)
 OTHER NAMES:
 CN 18: PN: W00170767 SEQID: 17 claimed sequence
 FS PROTEIN SEQUENCE; STEREOSEARCH
 MF C47 H70 N12 O14
 SR CA
 LC STN Files: CA, CAPLUS, TOXCENTER, USPATFULL
 DT.CA Caplus document type: Patent
 RL.P Roles from patents: BIOL (Biological study); PREP
 (Preparation); PRP
 (Properties); USES (Uses)

Absolute stereochemistry.

PAGE 1-A



PAGE 1-B



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT
 1 REFERENCES IN FILE CA (1907 TO DATE)

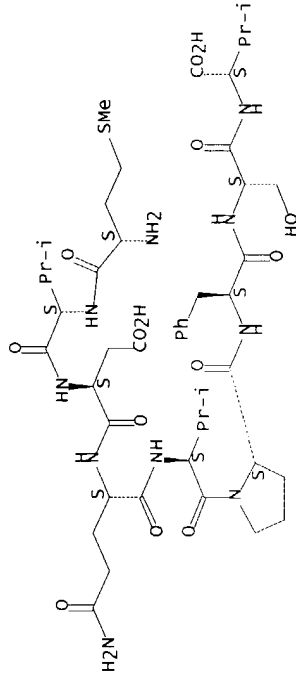
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L1 ANSWER 2 OF 11 REGISTRY COPYRIGHT 2004 ACS on STN
 RN 363172-61-6 REGISTRY
 CN L-Valine, L-methionyl-L-valyl-L-α-aspartyl-L-glutaminy]-L-valyl-L-
 L-
 prolyl-L-phenylalanyl-L-seryl- (9CI) (CA INDEX NAME)

OTHER NAMES:
 CN 16: PN: W00170767 SEQID: 15 claimed sequence
 FS PROTEIN SEQUENCE; STEREOSEARCH
 MF C46 H72 N10 O14 S
 SR CA

LC STN Files: CA, CAPLUS, TOXCENTER, USPATFULL
 DT.CA Caplus document type: Patent
 RL.P Roles from patents: BIOL (Biological study); PREP
 (Preparation); PRP
 (Properties); USES (Uses)

Absolute stereochemistry.



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

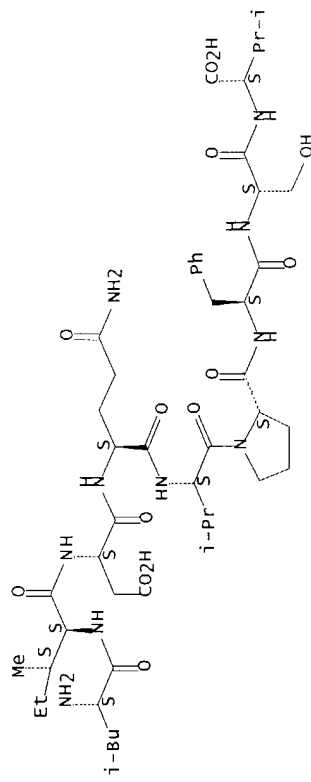
1 REFERENCES IN FILE CA (1907 TO DATE)
 1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L1 ANSWER 3 OF 11 REGISTRY COPYRIGHT 2004 ACS on STN
 RN 363172-60-5 REGISTRY
 CN L-Valine, L-leucyl-L-isoleucyl-L-α-aspartyl-L-glutaminy]-L-
 valyl-L-
 prolyl-L-phenylalanyl-L-seryl- (9CI) (CA INDEX NAME)

OTHER NAMES:
 CN 14: PN: W00170767 SEQID: 13 claimed sequence
 FS PROTEIN SEQUENCE; STEREOSEARCH
 MF C48 H76 N10 O14
 SR CA

LC STN Files: CA, CAPLUS, TOXCENTER, USPATFULL
 DT.CA Caplus document type: Patent
 RL.P Roles from patents: BIOL (Biological study); PREP
 (Preparation); PRP
 (Properties); USES (Uses)

Absolute stereochemistry.



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

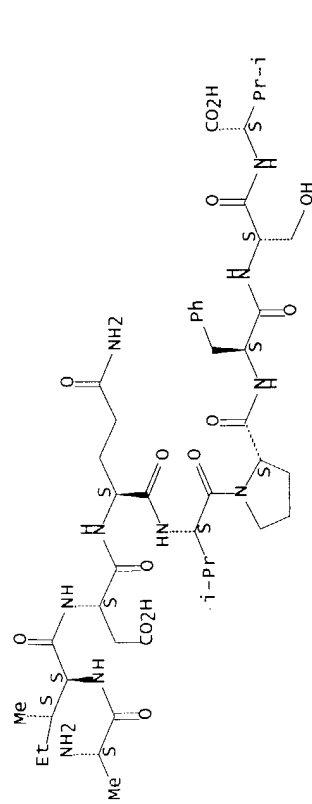
1 REFERENCES IN FILE CA (1907 TO DATE)
 1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L1 ANSWER 4 OF 11 REGISTRY COPYRIGHT 2004 ACS on STN
 RN 363172-59-2 REGISTRY
 CN L-Valine, L-alanyl-L-isoleucyl-L-α-aspartyl-L-glutaminy]-L-
 valyl-L-
 prolyl-L-phenylalanyl-L-seryl- (9CI) (CA INDEX NAME)

OTHER NAMES:
 CN 12: PN: W00170767 SEQID: 11 claimed sequence
 FS PROTEIN SEQUENCE; STEREOSEARCH
 MF C45 H70 N10 O14
 SR CA

LC STN Files: CA, CAPLUS, TOXCENTER, USPATFULL
 DT.CA Caplus document type: Patent
 RL.P Roles from patents: BIOL (Biological study); PREP
 (Preparation); PRP
 (Properties); USES (Uses)

Absolute stereochemistry.



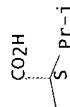
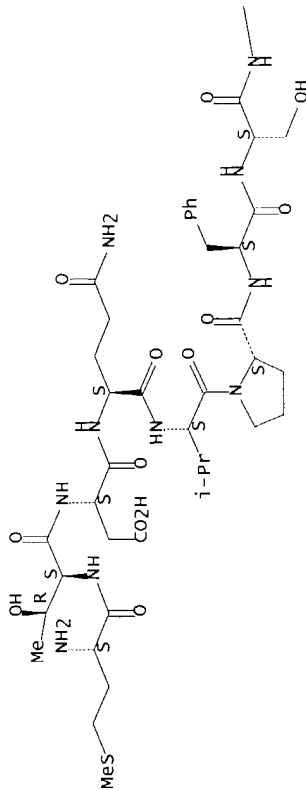
PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L1 ANSWER 5 OF 11 REGISTRY COPYRIGHT 2004 ACS on STN
RN 363172-58-1 REGISTRY
CN L-Valine, L-methionyl-L-threonyl-L-α-aspartyl-L-glutaminyll-L-valyl-L-prolyl-L-phenylalanyl-L-seryl- (9CI) (CA INDEX NAME)

OTHER NAMES:
CN 10: PN: W00170767 SEQID: 9 claimed sequence
FS PROTEIN SEQUENCE; STEREOSEARCH
MF C45 H70 N10 O15 S
SR CA
LC STN Files: CA, CAPLUS, TOXCENTER, USPATFULL
DT.CA Caplus document type: Patent
RL.P Roles from patents: BIOL (Biological study); PREP (Preparation); PRP (Properties); USES (Uses)

Absolute stereochemistry.



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

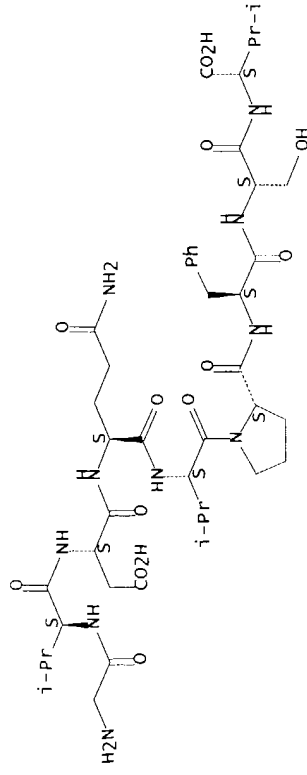
1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L1 ANSWER 6 OF 11 REGISTRY COPYRIGHT 2004 ACS on STN
RN 363172-57-0 REGISTRY
CN L-Valine, glycyl-L-valyl-L-α-aspartyl-L-glutaminyll-L-valyl-L-prolyl-L-phenylalanyl-L-seryl- (9CI) (CA INDEX NAME)

OTHER NAMES:
CN 8: PN: W00170767 SEQID: 7 claimed sequence
FS PROTEIN SEQUENCE; STEREOSEARCH
MF C43 H66 N10 O14

SR CA
 LC STN Files: CA, CAPLUS, TOXCENTER, USPATFULL
 DT.CA Caplus document type: Patent
 RL.P Roles from patents: BIOL (Biological study); PREP (Preparation); PRP (Properties); USES (Uses)

Absolute stereochemistry.



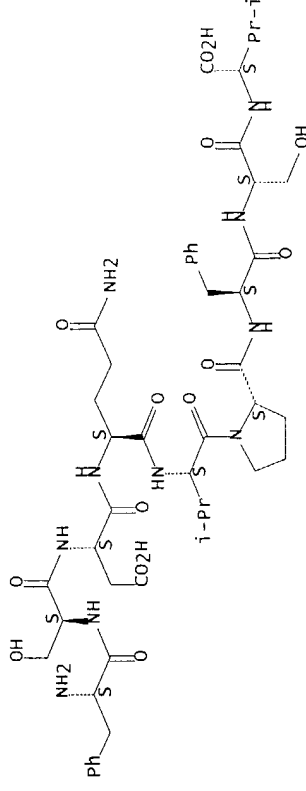
PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1907 TO DATE)
 1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L1 ANSWER 7 OF 11 REGISTRY COPYRIGHT 2004 ACS on STN
 RN 363172-56-9 REGISTRY
 CN L-valine, L-phenylalanyl-L-seryl-L- α -aspartyl-L-glutaminy]-L-valyl-L-prolyl-L-phenylalanyl-L-seryl- (9CI) (CA INDEX NAME)

OTHER NAMES:
 CN 6: PN: W00170767 SEQID: 5 claimed sequence
 FS PROTEIN SEQUENCE; STEREOSEARCH
 MF C48 H68 N10 O15
 SR CA
 LC STN Files: CA, CAPLUS, TOXCENTER, USPATFULL
 DT.CA Caplus document type: Patent
 RL.P Roles from patents: BIOL (Biological study); PREP (Preparation); PRP (Properties); USES (Uses)

Absolute stereochemistry.



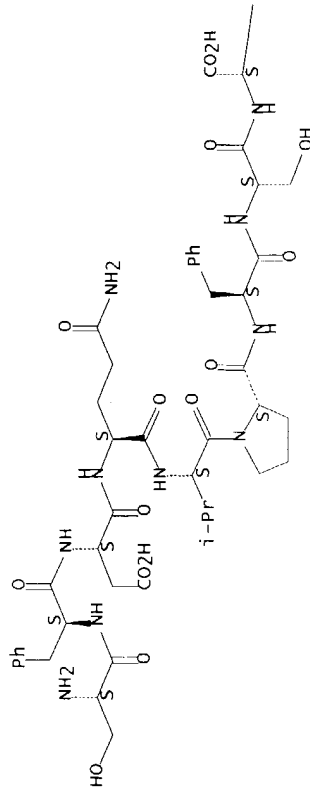
PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1907 TO DATE)
 1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L1 ANSWER 8 OF 11 REGISTRY COPYRIGHT 2004 ACS on STN
 RN 363172-55-8 REGISTRY
 CN L-valine, L-seryl-L-phenylalanyl-L- α -aspartyl-L-glutaminy]-L-valyl-L-prolyl-L-phenylalanyl-L-seryl- (9CI) (CA INDEX NAME)

OTHER NAMES:
 CN 4: PN: W00170767 SEQID: 3 claimed sequence
 FS PROTEIN SEQUENCE; STEREOSEARCH
 MF C48 H68 N10 O15
 SR CA
 LC STN Files: CA, CAPLUS, TOXCENTER, USPATFULL
 DT.CA Caplus document type: Patent
 RL.P Roles from patents: BIOL (Biological study); PREP (Preparation); PRP (Properties); USES (Uses)

Absolute stereochemistry.



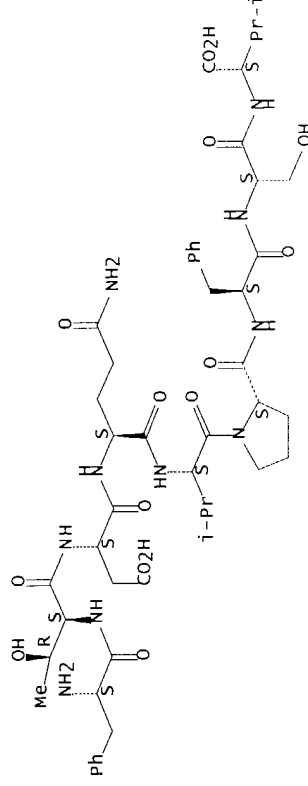
—Pr-i

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L1 ANSWER 9 OF 11 REGISTRY COPYRIGHT 2004 ACS on STN
RN 181477-48-5 REGISTRY
CN L-Valine, L-phenylalanyl-L-threonyl-L-α-aspartyl-L-glutamyl-L-
valyl-L-prolyl-L-phenylalanyl-L-seryl- (9CI) (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN L-Valine, N-[N-[1-[N-[N2-[N-(N-L-phenylalanyl-L-threonyl)-L-
α-aspartyl]-L-glutamyl]-L-valyl]-L-prolyl]-L-phenylalanyl]-L-
seryl]-

OTHER NAMES:
CN 1802: PN: W003040165 TABLE: 15 claimed protein
FS PROTEIN SEQUENCE; STEREOSEARCH
MF C49 H70 N10 O15
SR CA
LC STN Files: CA, CAPLUS, TOXCENTER, USPATFULL
DT.CA Caplus document type: Journal; Patent
RL.P Roles from patents: BIOL (Biological study); PRP
(Properties); USES
(Uses)
RL.NP Roles from non-patents: BIOL (Biological study); PROC
(Process); PRP
(Properties)
Absolute stereochemistry.

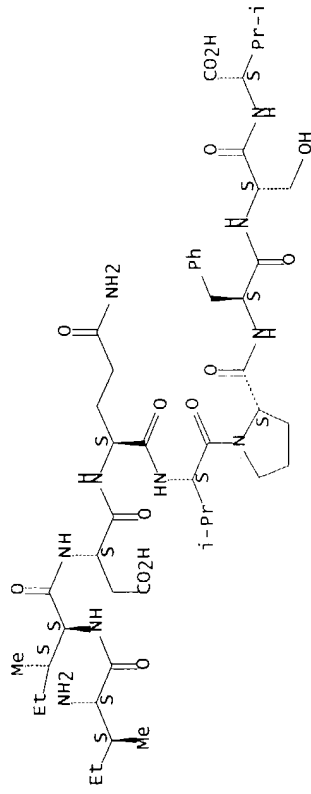


5 REFERENCES IN FILE CA (1907 TO DATE)
5 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L1 ANSWER 10 OF 11 REGISTRY COPYRIGHT 2004 ACS on STN
RN 181477-46-3 REGISTRY
CN L-Valine, L-isoleucyl-L-isoleucyl-L-α-aspartyl-L-glutamyl-L-
valyl-
L-prolyl-L-phenylalanyl-L-seryl- (9CI) (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN L-Valine, N-[N-[1-[N-[N2-[N-(N-L-isoleucyl-L-isoleucyl)-L-α-
aspartyl]-L-glutamyl]-L-valyl]-L-prolyl]-L-phenylalanyl]-L-
seryl]-

OTHER NAMES:
CN 1804: PN: W003040165 TABLE: 15 claimed protein
FS PROTEIN SEQUENCE; STEREOSEARCH
MF C48 H76 N10 O14
SR CA
LC STN Files: CA, CAPLUS, TOXCENTER, USPATFULL
DT.CA Caplus document type: Journal; Patent

RL.P Roles from patents: BIOL (Biological study); PRP (Properties); USES (Uses)
RL.NP Roles from non-patents: BIOL (Biological study); PROC (Process); PRP (Properties); USES (Uses)
Absolute stereochemistry.



6 REFERENCES IN FILE CA (1907 TO DATE)
6 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L1 ANSWER 11 OF 11 REGISTRY COPYRIGHT 2004 ACS on STN
RN 162558-10-3 REGISTRY
CN L-Valine, L-isoleucyl-L-threonyl-L- α -aspartyl-L-glutaminy]-L-valyl-L-prolyl-L-phenylalanyl-L-seryl- (9CI) (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN L-Valine, N-[N-[1-[N-[N2-[N-(N-L-isoleucyl)-L-threonyl)-L- α -aspartyl]-L-glutaminy]-L-valyl]-L-prolyl]-L-phenylalanyl]-L-seryl]-

OTHER NAMES:
CN 11: PN: W00192294 SEQID: 23 claimed sequence
CN 12: PN: W003024480 PAGE: 84 unclaimed sequence
CN 157: PN: W00178655 SEQID: 10 claimed sequence
CN 16: PN: W00119408 SEQID: 16 unclaimed sequence
CN 20: PN: W00170767 SEQID: 19 unclaimed sequence
CN 23: PN: W00053161 SEQID: 62 unclaimed sequence
CN 26: PN: US6710172 SEQID: 27 unclaimed sequence
CN 27: PN: US6531451 SEQID: 27 unclaimed sequence
CN 28: PN: W00049041 SEQID: 32 claimed sequence
CN 2: PN: W00127291 SEQID: 3 unclaimed sequence
CN 30: PN: W00236146 SEQID: 30 claimed sequence
CN 31: PN: W00020457 SEQID: 29 unclaimed sequence
CN 31: PN: W00193835 SEQID: 62 unclaimed sequence

CN 320: PN: US20040058881 TABLE: 12.6 claimed sequence
CN 32: PN: W003106616 SEQID: 16 claimed sequence
CN 334: PN: US20020007173 SEQID: 377 unclaimed sequence
CN 33: PN: W00021151 SEQID: 33 claimed sequence
CN 35: PN: W00050589 SEQID: 35 unclaimed sequence
CN 36: PN: US6291430 SEQID: 72 unclaimed sequence
CN 36: PN: W00006598 SEQID: 37 unclaimed sequence
CN 37: PN: US6245325 SEQID: 31 unclaimed sequence
CN 37: PN: W00020445 SEQID: 27 unclaimed sequence
CN 38: PN: US20040033541 SEQID: 38 unclaimed sequence
CN 38: PN: W00129220 SEQID: 36 unclaimed sequence
CN 47: PN: W00013699 SEQID: 43 unclaimed sequence
CN 4: PN: US20040071671 SEQID: 4 claimed sequence
CN 51: PN: W003100027 SEQID: 51 unclaimed sequence
CN 57: PN: W00020581 SEQID: 72 unclaimed sequence
CN 58: PN: W00153833 SEQID: 43 unclaimed sequence
CN 5: PN: W00123577 SEQID: 3 claimed sequence
CN 5: PN: W00149317 SEQID: 5 unclaimed sequence
CN 68: PN: W00078806 SEQID: 68 unclaimed sequence
CN 69: PN: W00032785 SEQID: 35 unclaimed sequence
CN 71: PN: US6716809 SEQID: 72 unclaimed sequence
CN 75: PN: W02004000351 SEQID: 73 unclaimed sequence
CN PN: W09950637 SEQID: 31 unclaimed protein
CN PN: W09953061 SEQID: 31 unclaimed sequence
CN PN: W09955892 FIGURE: 15 unclaimed sequence
FS PROTEIN SEQUENCE; STEREOSEARCH
MF C46 H72 N10 O15
SR CA
LC STN Files: CA, CAPLUS, CHEMCATS, TOXCENTER, USPATFULL
DT.CA Caplus document type: Journal; Patent
RL.P Roles from patents: BIOL (Biological study); PROC (Process); PRP (Properties); USES (Uses)
RL.NP Roles from non-patents: BIOL (Biological study); OCCU (Occurrence); PREP (Preparation); PROC (Process); PRP (Properties); USES (Uses)
RLD.NP Roles for non-specific derivatives from non-patents: BIOL (Biological study)
Absolute stereochemistry.

QUERY PROCESSING INTERRUPTED
The system was temporarily unable to process your query. If this message appears repeatedly, please notify the Help Desk. Enter "HELP STN" for information on contacting the nearest STN Help Desk by telephone or via SEND in the STNMAIL file.

=> d his

(FILE 'HOME' ENTERED AT 13:44:59 ON 25 MAY 2004)

FILE 'REGISTRY' ENTERED AT 13:46:21 ON 25 MAY 2004

L1 11 S ^[SFGMALHI][FSVTI]DQVPFSA/SQSP

INDEX 'ADISCTI, ADISINSIGHT, ADISNEWS, AGRICOLA, ANABSTR, AQUASCI, BIOBUSINESS, BIOCOMMERCE, BIOSIS, BIOTECHABS, BIOTECHDS, BIOTECHNO, CABA, CANCERLIT, CAPLUS, CEABA-VTB, CEN, CIN, CONFSCI, CROPB, CROPU, DISSABS, DDFB, DDFU, DGENE, DRUGB, DRUGMONOG2, ...' ENTERED AT 13:54:41 ON 25 MAY 2004

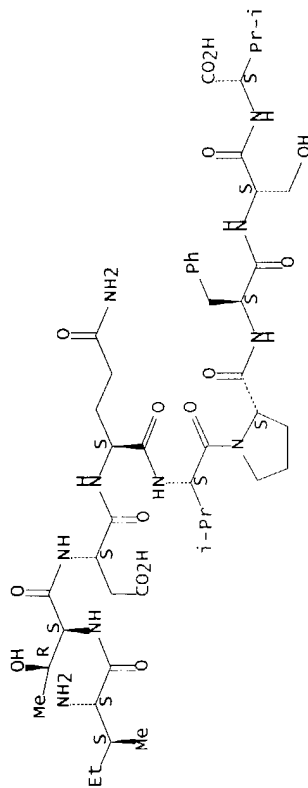
SEA L1

```
-----
0* FILE ADISCTI
0* FILE ADISINSIGHT
0* FILE ADISNEWS
0* FILE AGRICOLA
0* FILE ANABSTR
0* FILE AQUASCI
0* FILE BIOBUSINESS
0* FILE BIOCOMMERCE
0* FILE BIOSIS
0* FILE BIOTECHABS
0* FILE BIOTECHDS
0* FILE BIOTECHNO
0* FILE CABA
0* FILE CANCERLIT
0* FILE CAPLUS
0* FILE CEABA-VTB
0* FILE CEN
0* FILE CIN
0* FILE CONFSCI
0* FILE CROPB
0* FILE CROPU
0* FILE DISSABS
0* FILE DDFB
0* FILE DDFU
```

FILE 'REGISTRY' ENTERED AT 13:55:13 ON 25 MAY 2004

FILE 'CAPLUS' ENTERED AT 13:56:10 ON 25 MAY 2004

=> file registry
COST IN U.S. DOLLARS SINCE FILE
TOTAL ENTRY



70 REFERENCES IN FILE CA (1907 TO DATE)
2 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
71 REFERENCES IN FILE CAPLUS (1907 TO DATE)

=> file caplus	SINCE FILE
COST IN U.S. DOLLARS	ENTRY
TOTAL	22.08
SESSION	
FULL ESTIMATED COST	
57.22	

FILE 'CAPLUS' ENTERED AT 13:56:10 ON 25 MAY 2004
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.
COPYRIGHT (C) 2004 AMERICAN CHEMICAL SOCIETY (ACS)

Copyright of the articles to which records in this database refer is held by the publishers listed in the PUBLISHER (PB) field (available for records published or updated in Chemical Abstracts after December 26, 1996), unless otherwise indicated in the original publications. The CA Lexicon is the copyrighted intellectual property of the American Chemical Society and is provided to assist you in searching databases on STN. Any dissemination, distribution, copying, or storing of this information, without the prior written consent of CAS, is strictly prohibited.

FILE COVERS 1907 - 25 May 2004 VOL 140 ISS 22
FILE LAST UPDATED: 24 May 2004 (20040524/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

=> s 11

SESSION
FULL ESTIMATED COST
59.41

2.19

FILE 'REGISTRY' ENTERED AT 13:58:58 ON 25 MAY 2004
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.
COPYRIGHT (C) 2004 American Chemical Society (ACS)

Property values tagged with IC are from the ZIC/VINITI data file
provided by Infochem.

STRUCTURE FILE UPDATES: 24 MAY 2004 HIGHEST RN 685504-43-2
DICTIONARY FILE UPDATES: 24 MAY 2004 HIGHEST RN 685504-43-2

TSCA INFORMATION NOW CURRENT THROUGH JANUARY 6, 2004

Please note that search-term pricing does apply when
conducting SmartSELECT searches.

Crossover limits have been increased. See HELP CROSSOVER for
details.

Experimental and calculated property data are now available. For more
information enter HELP PROP at an arrow prompt in the file or refer
to the file summary sheet on the web at:

<http://www.cas.org/ONLINE/DBSS/registryss.html>

```
=> e 11
E1 1 LON0/BI
E2 2 LOU0/BI
E3 6568 --> L1/BI
E4 1 L1.01/BI
E5 1 L1.02/BI
E6 1 L1.03/BI
E7 1 L1.04/BI
E8 1 L1.05/BI
E9 1 L1.06/BI
E10 1 L1.07/BI
E11 1 L1.08/BI
E12 1 L1.09/BI

=> e ^[SFGMALHI][FsvTI]DQVPFSV^/sqep
**** START OF FIELD ****
E3 0 --> SFGMALHIFSVTIDQVPFSV/SQEP
E4 82 'AAA'/'SQEP
E5 4 'AAA'/'AAA'/'A'/'SQEP
E6 1 'AAA'/'AAA'/'A'/'AAA'/'A'/'SQEP
E7 1 'AAA'/'AAA'/'A'/'AAA'/'A'/'AAA'/'A'/'AAA'/'A'/'SQEP
E8 1 'AAA'/'A'/'AAA'/'A'/'AAA'/'L'/'AAA'/'P'/'AAA'/'AAA'/'AAA'/'HAR'/'AAA'/'
AAA'/'ND'/'AAA'-'
AAA'/'PD'/'AAA'/'AAA'/'GG'/'A
AA'/'GGC'/'AAA'/'G'/'AAA'/'AAA'/'RK'/'AAA'/'V'/'AAA'/'AAA'/'AAA'-'
AAA'/'E'/'AAA'/'TL'/'AAA'-'A
AA'/'CL'/'AAA'/'AAA'/'AAA'/'/'/'SQEP
E9 1 'AAA'/'A'/'AAA'/'AAA'/'SQEP
E10 1 'AAA'/'A'/'AAA'/'AALAGAA'/'AAA'/'AALV'/'SQEP
E11 1 'AAA'/'A'/'AAA'/'AALAGAA'/'AAA'/'AGLA'/'SQEP
E12 1 'AAA'/'A'/'AAA'/'AALAGAA'/'AAA'/'AGLV'/'SQEP

=> e SFDQVPFSV/sqep
E1 1
SFDQRDLAQDEAVWLERGPLEPSEPAAVAAARVGVGHAGEWARKPLRFYVRGSPWVSVD
RVAEQDTQA/SQEP
E2 1 SFDQSCD/SQEP
E3 1 --> SFDQVPFSV/SQEP
E4 1
SFDQYFAYTAYDIDLFEEGSTANLTASIIGNVFGFKALKALRLEDNRIPVAYLKTQGPA
TGIIAERERMDKGRPLGATVKPLGLSRKNYGRVYEGLGKGLDFLKDDENINSQPFM
RWKERFLYAMEGVNRSAASTGEVKGHYLNVTAGTMEDMYERAEFAKQLGSIIGMID'AAA
'VIGYTAIQTMGIWARKNDM/SQEP
E5 1
SFDRAKVLAGQQTVPVFFGSALTNGVETFLFQFVDLAPAPGEHEVNGDEELKPDDEDF/S
QEP
E6 3
SFDRDHVLHAAERQFRTTGYNGTSVDDISAATGLGRGSLYAAFDGKHGVLQAMAGYSIR
LGQFVPEALAGPDEGALERLGRFLRAVEGVPLAADVPAPDRAAAACFAAKMALEIGAS
DSEVERLANDCFLSVATAVAECVRAAQRNGIDPDADPDDLAYLLLTIVRGVGVVVGASGH
E7 1 SPARLTSAIESAFALLPRPR/SQEP
SFDREGRGSSSLGTHERRKISGKAKSRGSRGRRGVSRRQQAQHRILITLLHNTSRCNLRR
PIRYKQOSNGN/SQEP
E8 1 SFDREKQESYTFYVK/SQEP
E9 1 SFDREFEJFPKE/SQEP
E10 1
SFDRFPLPNTVQNQLILVAGGIRLSPFLATFSDITLHVLSDPESPL'AAA'/'PNS'/'SQEP
E11 1 SFDRKSVYR/SQEP
E12 1 SFDORSIPEN/SQEP
```

FILE 'REGISTRY' ENTERED AT 14:04:37 ON 25 MAY 2004
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER A
PLEASE SEE "HELP USAGETERMS" FOR DETAILS:
COPYRIGHT (C) 2004 American Chemical Society (ACS)

Property values tagged with IC are from the ZIC/VINITI data file provided by InfoChem.

STRUCTURE FILE UPDATES:	24 MAY 2004	HIGHEST RN	685504-43-2
DICTIONARY FILE UPDATES:	24 MAY 2004	HIGHEST RN	685504-43-2

TSCA INFORMATION NOW CURRENT THROUGH JANUARY 6, 2004

Please note that search-term pricing does apply when conducting SmartSELECT searches.

Crossover Limits have been increased. See HELP CROSSOVER for details.

Experimental and calculated property data are now available. For more information enter HELP PROP at an arrow prompt in the file or refer to the file summary sheet on the web at:
<http://www.cas.org/ONLINE/DBSS/registrvss.html>

```
=> SET TERMSET E#
```

SET COMMAND COMPLETED

 \Rightarrow DEL SEL Y

\Rightarrow SEL L1 4 RN

E1 THROUGH E1 ASSIGNED

$$\Rightarrow S \leq 1/RN$$

L4 1 363172-59-2/RN

```
=> SET TERMSET LOGIN
```

SET COMMAND COMPLETED

\Rightarrow FIL CAPLUS

COST IN U.S. DOLLARS		SINCE FILE
TOTAL		

SESSION	
FULL ESTIMATED COST	0.50
96.79	

FILE 'CAPLUS' ENTERED AT 14:04:41 ON 25 MAY 2004
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.
COPYRIGHT (C) 2004 AMERICAN CHEMICAL SOCIETY (ACS)

```
=> s SFDQVPFSV/sqefp
      1 SFDQVPFSV/SQEFPP
      90448 SQL=9

L2
      1 SFDQVPFSV/SQEFPP
      (SFDQVPFSV/SQEFPP AND SQL=9)
```

```
=> $ SFDQVPFSV/sqsp
L3      1 SFDQVPFSV/SQSP
```

```
=> e ..DQVPFSV/sqep'
E1      1      'WTL-WTL-WTL-WTL-WTL-WTL-K/SQEP
E2      3      'WTL-WTL-WTL-WTL-WTL-WTL-WTL-WTL-A/SQEP
E3      0      --..DQVPFSV/SQEP
E4      198     A/SQEP
E5      1      A'AAA,A'AAA'G/SQEP
E6      1      A'AAA'A'AIB'/SQEP
E7      16     A'AAA'AA/SQEP
E8      1      A'AAA'AA'AAA'A/SQEP
E9      1      A'AAA'AA'AAA'AA'AAA'A/SQEP
E10     1      A'AAA'AAA/SQEP
E11     2      A'AAA'AAAA/SQEP
E12     13     A'AAA'AAAA'AIB'AA/SQEP
```

```
=> e .DQPFVS/sasp
'SQSP' IS NOT A VALID EXPAND FIELD CODE FOR FILE 'REGISTRY'
The indicated field code is not available for EXPAND in this
file. To see a list of valid EXPAND field codes, enter HELP
SFIELDS at an arrow prompt (=>).
```

```
=> e ..DQVPFSV      1 .A,A',A''/BI
E1 E1                1 .A.,7/BI
E2 E2                0 --> ..DQVPFSV/BI
E3 E3                1 .2.0/BI
E4 E4                2 .264625,264688...265191/BI
E5 E5                2 A'/BI
E6 E6               2732416 A'/BI
E7 E7              1570 A'',/BI
E8 E8               11 A''',/BI
E9 E9               5 A''',/BI
E10 E10             1 A,,,,A,,,,,A,,,,,A,,,,,A,,,,
E11 E11            2 A'',A''',/BI
E12 E12            3 A''',R*/BI
```

=>	FIL	REGISTRY
COST IN U.S. DOLLARS		SINCE FILE
TOTAL		ENTRY
SESSION		
FULL ESTIMATED COST		36.88
96.29		

Copyright of the articles to which records in this database refer is held by the publishers listed in the PUBLISHER (PB) field (available for records published or updated in Chemical Abstracts after December 26, 1996), unless otherwise indicated in the original publications. The CA Lexicon is the copyrighted intellectual property of the American Chemical Society and is provided to assist you in searching databases on STN. Any dissemination, distribution, copying, or storing of this information, without the prior written consent of CAS, is strictly prohibited.

FILE COVERS 1907 - 25 MAY 2004 VOL 140 ISS 22
FILE LAST UPDATED: 24 MAY 2004 (20040524/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

=> S L4

L5 1 L4

=> DIS L5 1 IBIB IABS

L5 ANSWER 1 OF 1 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2001:713374 CAPLUS Full-text
DOCUMENT NUMBER: 135:267217
TITLE: synthetic antigenic peptide sequences for
gp100

vaccines
positive melanoma and uses for cancer

INVENTOR(S): Nicolette, Charles A.
PATENT ASSIGNEE(S): Genzyme Corporation, USA
SOURCE: PCT Int. Appl., 67 pp.
CODEN: PIXXD2

DOCUMENT TYPE: Patent
LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001070767	A2	20010927	WO 2001-US8919	20010319
WO 2001070767	A3	20020124		
W: AU, CA, JP				
RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR				
US 2002169132	A1	20021114	US 2001-812238	20010319
EP 1268542	A2	20030102	EP 2001-959922	20010319
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI, CY, TR				
JP 2003528111	T2	20030924	JP 2001-568968	20010319
US 2000-190750P P 20000320				
US 2000-255019P P 20001212				

PRIORITY APPLN. INFO.:

WO 2001-US8919 W 20010319

ABSTRACT:
The present invention provides synthetic compds., antibodies that recognize and bind to these compds., polynucleotides that encode these compds., and immune effector cells raised in response to presentation of these epitopes.

In particular, this invention provides novel, synthetic antigenic peptide sequences, which are useful as components of anti-cancer vaccines and to expand immune effector cells that are specific for cancers characterized by expression of the melanoma antigen gp100. The invention further provides methods for inducing an immune response and administering immunotherapy to a subject by delivering the compns. of the invention. In one embodiment, the altered ligands of the invention have comparable affinity for MHC binding as the native ligand.

=>

---Logging off of STN---

=> Executing the logoff script...

=> LOG Y

COST IN U.S. DOLLARS SINCE FILE
TOTAL ENTRY

SESSION FULL ESTIMATED COST 4.29
101.08

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS) SINCE FILE
TOTAL ENTRY

SESSION CA SUBSCRIBER PRICE -0.69
0.69

STN INTERNATIONAL LOGOFF AT 14:06:52 ON 25 MAY 2004

Connecting via winsock to STN

Enter NEWS followed by the item number or name to see news on that specific topic.

All use of STN is subject to the provisions of the STN Customer agreement. Please note that this agreement limits use to scientific research. Use for software development or design or implementation of commercial gateways or other similar uses is prohibited and may result in loss of user privileges and other penalties.

***** STN Columbus *****

FILE 'HOME' ENTERED AT 14:13:54 ON 25 MAY 2004

=> file registry
COST IN U.S. DOLLARS
TOTAL

SESSION
FULL ESTIMATED COST
0.21

ENTRY
0.21

FILE 'REGISTRY' ENTERED AT 14:14:28 ON 25 MAY 2004
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.
COPYRIGHT (C) 2004 American Chemical Society (ACS)

Property values tagged with IC are from the ZIC/VINITI data file provided by Infochem.

STRUCTURE FILE UPDATES: 24 MAY 2004 HIGHEST RN 685504-43-2
DICTIONARY FILE UPDATES: 24 MAY 2004 HIGHEST RN 685504-43-2

TSCA INFORMATION NOW CURRENT THROUGH JANUARY 6, 2004
Please note that search-term pricing does apply when conducting SmartSELECT searches.

Crossover limits have been increased. See HELP CROSSOVER for details.

Experimental and calculated property data are now available. For more information enter HELP PROP at an arrow prompt in the file or refer to the file summary sheet on the web at:
<http://www.cas.org/ONLINE/DBSS/registryss.html>

=> s ^[SFGMALHI][FSVTI]DQVPFSV
0 SFGMALHI
0 FSVTI
0 DQVPFSV

L1 0 ^[SFGMALHI][FSVTI]DQVPFSV
(SFGMALHI(w)FSVTI(w)DQVPFSV)

=> s ^[SFGMALHI][FSVTI]DQVPFSV/sqep
GAPS, WILDCARDS, AND BRACKETS ARE INVALID FOR "EXACT" SEQUENCE FIELD

Welcome to STN International! Enter x:x

LOGINID:ssspta1653adk

PASSWORD:

TERMINAL (ENTER 1, 2, 3, OR ?):2

***** welcome to STN International *****

NEWS 1 Web Page URLs for STN Seminar schedule - N. America
NEWS 2 "Ask CAS" for self-help around the clock
NEWS 3 JAN 27 source of Registration (SR) information in REGISTRY updated

NEWS 4 JAN 27 and searchable.
available in A new search aid, the Company Name Thesaurus,
NEWS 5 FEB 05 CA/Caplus
number format German (DE) application and patent publication

NEWS 6 MAR 03 Changes
NEWS 7 MAR 03 MEDLINE and LMedline reloaded
NEWS 8 MAR 03 MEDLINE file segment of TOXCENTER reloaded
NEWS 9 MAR 29 FRANCEPAT now available on STN
NEWS 10 MAR 29 Pharmaceutical Substances (PS) now available on STN
NEWS 11 MAR 29 WPIFV now available on STN
NEWS 12 MAR 29 New monthly current-awareness alert (SDI) frequency in RAPRA

NEWS 13 APR 26 PROMT: New display field available
NEWS 14 APR 26 IFIPAT/IFIUDB/IFICDB: New super search and display field available

NEWS 15 APR 26 LITAlert now available on STN
NEWS 16 APR 27 NLDB: New search and display fields available
NEWS 17 May 10 PROUSDDR now available on STN
NEWS 18 May 19 PROUSDDR: One FREE connect hour, per account, in both May and June 2004

NEWS 19 May 12 EXTEND option available in structure searching
NEWS 20 May 12 POLYMER links for the POLYLINK command completed in REGISTRY
NEWS 21 May 17 FRFULL now available on STN

NEWS EXPRESS MARCH 31 CURRENT WINDOWS VERSION IS V7.00A, CURRENT
MACINTOSH VERSION IS V6.0c(ENG) AND V6.0Jc(JP),
AND CURRENT DISCOVER FILE IS DATED 26 APRIL 2004

NEWS HOURS STN Operating Hours Plus Help Desk Availability
NEWS INTER General Internet Information
NEWS LOGIN Welcome Banner and News Items
NEWS PHONE Direct Dial and Telecommunication Network Access to STN
NEWS WWW CAS world wide web site (general information)

CODES.

=> s ^[SFGMALHI][FSVTI]DQVPFSV/SQSP
GAPS, WILDCARDS, AND BRACKETS ARE INVALID FOR "EXACT" SEQUENCE FIELD CODES.

=> s ^[SFGMALHI][FSVTI]DQVPFSV/SQSP
L2 47 ^[SFGMALHI][FSVTI]DQVPFSV/SQSP

=> sort l2 1- sq] a
PROCESSING COMPLETED FOR L2
L3 47 SORT L2 1- SQL A

=> rem dup l3
DUP IS NOT VALID HERE

The DELETE command is used to remove various items stored by the system.

To delete a saved query, saved answer set, saved L-number list, SDI request, batch request, mailing list, or user-defined cluster, format, or search field, enter the name. The name may include ? for left, right, or simultaneous left and right truncation.

Examples:

```
DELETE BIO?/Q
DELETE ?DRUG/A
DELETE ?ELEC?/L
DELETE ANTICOAG/S
DELETE ENZYME/B
DELETE .MYCLUSTER
DELETE .MYFORMAT
DELETE .MYFIELD
DELETE NAMELIST MYLIST - delete mailing list
```

To delete an ordered document or an offline print, enter its number.

Examples:

```
DELETE P123001C - delete print request
DELETE D134002C - delete document order request
```

To delete an individual L-number or range of L-numbers, enter the L-number or L-number range. You may also enter DELETE LAST followed by a number, n, to delete the last n L-numbers. RENUMBER or NORENUMBER may also be explicitly specified to override the value of SET RENUMBER.

Examples:

```
DELETE L21 - delete a single L-number
DELETE L3-L6 - delete a range of L-numbers
DELETE LAST 4 - delete the last 4 L-numbers
DELETE L33- - delete L33 and any higher L-number
```

```
DELETE -L55 - delete L55 and any lower L-number
DELETE L2-L6 RENUMBER - delete a range of L-numbers and
                        renumber remaining L-numbers
DELETE RENUMBER - renumber L-numbers after deletion of
                  intermediate L-numbers
```

Entire sets of saved items, SDI requests, batch requests, user-defined items, or E-numbers can be deleted.

Examples:

```
DELETE SAVED/Q - delete all saved queries
DELETE SAVED/A - delete all saved answer sets
DELETE SAVED/L - delete all saved L-number lists
DELETE SAVED - delete all saved queries, answer sets,
               and L-number lists
DELETE SAVED/S - delete all SDI requests
DELETE SAVED/B - delete all batch requests
DELETE CLUSTER - delete all user-defined clusters
DELETE FORMAT - delete all user-defined display formats
DELETE FIELD - delete all user-defined search fields
DELETE SELECT - delete all E-numbers
DELETE HISTORY - delete all L-numbers and restart the
                 session at L1
```

To delete an entire multifile SDI request, enter DELETE and the name of the request. To delete a component from the multifile SDI, enter DELETE and the name of the component.

=> d his

(FILE 'HOME' ENTERED AT 14:13:54 ON 25 MAY 2004)

FILE 'REGISTRY' ENTERED AT 14:14:28 ON 25 MAY 2004

```
L1 0 S ^[SFGMALHI][FSVTI]DQVPFSV
L2 47 S ^[SFGMALHI][FSVTI]DQVPFSV/SQSP
L3 47 SORT L2 1- SQL A
```

=> s l3 and pd<=20000320

L4 47 S L3

L5 104429 PD<=20000320

L6 0 L4 AND PD<=20000320

=> s l3 and py<=2000

L6 47 S L3

L7 '2000' NOT A VALID FIELD CODE

L8 0 PY<=2000

L9 0 L6 AND PY<=2000

=> s l3 and py<2001

L8 47 S L3

L9 '2001' NOT A VALID FIELD CODE

L7 0 PY<2001

L8 0 L8 AND PY<2001

=> file caplus

COST IN U.S. DOLLARS	SINCE FILE
TOTAL	ENTRY
SESSION	50.52
FULL ESTIMATED COST	
50.73	

FILE 'CAPLUS' ENTERED AT 14:23:40 ON 25 MAY 2004
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.
COPYRIGHT (C) 2004 AMERICAN CHEMICAL SOCIETY (ACS)

Copyright of the articles to which records in this database refer is held by the publishers listed in the PUBLISHER (PB) field (available for records published or updated in Chemical Abstracts after December 26, 1996), unless otherwise indicated in the original publications. The CA Lexicon is the copyrighted intellectual property of the American Chemical Society and is provided to assist you in searching databases on STN. Any dissemination, distribution, copying, or storing of this information, without the prior written consent of CAS, is strictly prohibited.

FILE COVERS 1907 - 25 May 2004 VOL 140 ISS 22
FILE LAST UPDATED: 24 May 2004 (20040524/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

```
=> s 73
L3 CANNOT BE SEARCHED IN CAPLUS
The L-number cannot be used because it does not contain a query.
Enter DISPLAY HISTORY to see the sequence of commands that created
this L-number.
```

\Rightarrow d his

```

L1 (FILE 'HOME' ENTERED AT 14:13:54 ON 25 MAY 2004)
L2 FILE 'REGISTRY' ENTERED AT 14:14:28 ON 25 MAY 2004
L3   0 5 ^LSFGMALHI][FVS7II]DQVPFSV
L4   47 5 ^LSFGMALHI][FVS7II]DQVPFSV/SQSP
L5   47 SORT L2 1- SQL A
L6   47 5 L3
L7   47 5 L3 AND PD<=20000320
L8   47 5 L3
L9   0 5 L3 AND PY<=2000
      47 5 L3
      0 5 L3 AND PY<2001
FILE 'CAPLUS' ENTERED AT 14:23:40 ON 25 MAY 2004

```

$$\Rightarrow s^{12} L^{10} 74 L^2$$

=> `rm_dup`
DUP IS NOT VALID HERE
The DELETE command is used to remove various items stored by the system.

To delete a saved query, saved answer set, saved L-number list, SDI request, batch request, mailing list, or user-defined cluster, format,

or search field, enter the name. The name may include ? for left, right, or simultaneous left and right truncation.

Examples:

```
DELETE BIO?/Q      - delete query names starting with BIO
DELETE ?DRUG/A     - delete answer set names ending with DRUG
DELETE ?ELEC/L     - delete L-number lists containing ELEC
DELETE ANTICOAG/S  - delete SOI request
DELETE ENZYME/B    - delete batch request
DELETE MYCLUSTER   - delete user-defined cluster
DELETE .MYFORMAT   - delete user-defined display format
DELETE .MYFIELD    - delete user-defined search field
DELETE NAMELIST    - delete mailing list
DELETE MYLIST      - delete mailing list
```

To delete an ordered document or an offline print, enter its number.

Examples:

```
DELETE P123001C - delete print request
DELETE P134002C - delete document order request
```

To delete an individual L-number or range of L-numbers, enter the L-number or L-number range. You may also enter DELETE LAST followed by a number, n, to delete the last n L-numbers. RENUMBER or NORENUMBER may also be explicitly specified to override the value of SET RENUMBER.

Examples:

```
DELETE L21
DELETE L3-L6
DELETE LAST 4
DELETE L33-
DELETE -L55
DELETE L2-L6 RENUMBER
DELETE RENUMBER

- delete a single L-number
- delete a range of L-numbers
- delete the last 4 L-numbers
- delete L33 and any higher L-number
- delete L55 and any lower L-number
- delete a range of L-numbers and
  renumber remaining L-numbers
- renumber L-numbers after deletion of
  intermediate L-numbers
```

Entire sets of saved items, SDI requests, batch requests, user-defined items, or E-numbers can be deleted.

Examples:

DELETE SAVED/Q - delete all saved queries
DELETE SAVED/A - delete all saved answer sets


```

DELETE SAVED/L - delete all saved L-number lists
DELETE SAVED - delete all saved queries, answer sets,
                and L-number lists
DELETE SAVED/S - delete all SDI requests
DELETE SAVED/B - delete all batch requests
DELETE CLUSTER - delete all user-defined clusters
DELETE FORMAT - delete all user-defined display formats
DELETE FIELD - delete all user-defined search fields
DELETE SELECT - delete all E-numbers
DELETE HISTORY - delete all L-numbers and restart the
                 session at L1

```

To delete an entire multifile SDI request, enter DELETE and the name of the request. To delete a component from the multifile SDI, enter DELETE and the name of the component.

=> d his

```
(FILE 'HOME' ENTERED AT 14:13:54 ON 25 MAY 2004)
```

```

FILE 'REGISTRY' ENTERED AT 14:14:28 ON 25 MAY 2004
  0 S ^[SFGMALHI][FSVTI]DQVPFSV
  47 S ^[SFGMALHI][FSVTI]DQVPFSV/SQSP
  47 SORT L2 1- SQL A
  47 S L3
  0 S L3 AND PD<=20000320
  47 S L3
  0 S L3 AND PY<=2000
  47 S L3
  0 S L3 AND PY<2001

```

```

FILE 'CAPLUS' ENTERED AT 14:23:40 ON 25 MAY 2004
  74 S L2

```

=> rem dup l10

DUP IS NOT VALID HERE

The DELETE command is used to remove various items stored by the system.

To delete a saved query, saved answer set, saved L-number list, SDI request, batch request, mailing list, or user-defined cluster, format, or search field, enter the name. The name may include ? for left, right, or simultaneous left and right truncation.

Examples:

```

DELETE BIO?/Q - delete query names starting with BIO
DELETE ?DRUG/A - delete answer set names ending with DRUG
DELETE ?ELEC?/L - delete L-number lists containing ELEC
DELETE ANTICOAG/S - delete SDI request
DELETE ENZYME/B - delete batch request
DELETE .MYCLUSTER - delete user-defined cluster
DELETE .MYFORMAT - delete user-defined display format
DELETE .MYFIELD - delete user-defined search field
DELETE NAMELIST MYLIST - delete mailing list

```

To delete an ordered document or an offline print, enter its number.

Examples:

```

DELETE P123001C - delete print request
DELETE D134002C - delete document order request

```

To delete an individual L-number or range of L-numbers, enter the L-number or L-number range. You may also enter DELETE LAST followed by a number, n, to delete the last n L-numbers. RENUMBER or NORENUMBER may also be explicitly specified to override the value of SET RENUMBER.

Examples:

```

DELETE L21 - delete a single L-number
DELETE L3-L6 - delete a range of L-numbers
DELETE LAST 4 - delete the last 4 L-numbers
DELETE L33- - delete L33 and any higher L-number
DELETE -L55 - delete L55 and any lower L-number
DELETE L2-L6 RENUMBER - delete a range of L-numbers and
                        renumber remaining L-numbers
DELETE RENUMBER - renumber L-numbers after deletion of
                  intermediate L-numbers

```

Entire sets of saved items, SDI requests, batch requests, user-defined items, or E-numbers can be deleted.

Examples:

```

DELETE SAVED/Q - delete all saved queries
DELETE SAVED/A - delete all saved answer sets
DELETE SAVED/L - delete all saved L-number lists
DELETE SAVED - delete all saved queries, answer sets,
                and L-number lists
DELETE SAVED/S - delete all SDI requests
DELETE SAVED/B - delete all batch requests
DELETE CLUSTER - delete all user-defined clusters
DELETE FORMAT - delete all user-defined display formats
DELETE FIELD - delete all user-defined search fields
DELETE SELECT - delete all E-numbers
DELETE HISTORY - delete all L-numbers and restart the
                 session at L1

```

To delete an entire multifile SDI request, enter DELETE and the name of the request. To delete a component from the multifile SDI, enter DELETE and the name of the component.

=> d his

```
(FILE 'HOME' ENTERED AT 14:13:54 ON 25 MAY 2004)
```

```

FILE 'REGISTRY' ENTERED AT 14:14:28 ON 25 MAY 2004
  0 S ^[SFGMALHI][FSVTI]DQVPFSV
  47 S ^[SFGMALHI][FSVTI]DQVPFSV/SQSP

```

L1
L2

L3 47 SORT L2 1- SQL A
L4 47 S L3
L5 0 S L3 AND PD<=20000320
L6 47 S L3
L7 0 S L3 AND PY<=2000
L8 47 S L3
L9 0 S L3 AND PY<2001

L10 FILE 'CAPLUS' ENTERED AT 14:23:40 ON 25 MAY 2004
74 S L2
=> s l10 and py<2001
20615729 PY<2001
L11 38 L10 AND PY<2001
=> d l11 1-38 ti.bib.abs

L11 ANSWER 1 OF 38 CAPLUS COPYRIGHT 2004 ACS on STN
TI MAGE-A3 gene-encoded HLA class II-binding tumor rejection
antigen peptides
for CD4+ T lymphocyte proliferation and for cancer diagnosis and
therapy
AN 2004:282855 CAPLUS Full-text
DN 140:302331
TI MAGE-A3 gene-encoded HLA class II-binding tumor rejection
antigen peptides
for CD4+ T lymphocyte proliferation and for cancer diagnosis and
therapy
IN Schultz, Erwin; Chaux, Pascal; Van der Bruggen, Pierre; Stroobant,
Bernard;
Boon-Fallaur, Thierry; Van der Bruggen, Pierre; Stroobant,
Vincent;
Thielemans, Kris; Corthals, Jurgen; Heirman, Carlo
PA Ludwig Institute for Cancer Research, USA
SO U.S., 59 pp., Cont.-in-part of U.S. 6,291,430.
DT Patent
LA English
FAN.CNT 4

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 6716809	B1	20040406	US 1999-396315	19990915
US 5965535	A	19991012	US 1997-928615	19970912
US 6291430	B1	20010918	US 1998-166448	19981005
US 1997-928615	A2	19970912		
US 1998-166448	A2	19981005		

AB The invention describes HLA class II binding peptides encoded by the MAGE-A3 tumor associated gene, as well as nucleic acids encoding such peptides and antibodies relating thereto. The peptides stimulate the activity and proliferation of CD4+ T lymphocytes. Methods and products also are provided for diagnosing and treating conditions characterized by expression of the MAGE-A3 gene.

RE.CNT 31
THERE ARE 31 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L11 ANSWER 2 OF 38 CAPLUS COPYRIGHT 2004 ACS on STN
TI Tumor antigens and CTL clones isolated by a novel procedure
AN 2004:240416 CAPLUS Full-text
DN 140:269525
TI Tumor antigens and CTL clones isolated by a novel procedure
IN Chaux, Pascal; Luiten, Rosalie; Demotte, Nathalie; Duffour,
Marie-Therese;
Lurquin, Christophe; Traversari, Catie; Stroobant, Vincent;
Cornelis, Guy
R.; Boon-Fallaur, Thierry; Van der Bruggen, Pierre; Schultz,
Erwin;
Wannier, Guy
PA Ludwig Institute for Cancer Research, USA
SO U.S., 40 pp., Cont.-in-part of U.S. 6,531,451.
DT Patent
LA English
FAN.CNT 3

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 6710172	B1	20040323	US 2001-806769	20010730
US 6407063	B1	20020618	US 1998-165863	19981002
US 6531451	B1	20030311	US 1999-289350	19990409
WO 2000020445	A2	20000413	WO 1999-181664	19990915
WO 2000020445	A3	20000713		

W: AU, CA, CN, JP, KR, NZ, US
RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU,
MC, NL,
PT, SE

PRAI US 1998-165863 A2 19981002
US 1999-289350 A2 19990409
WO 1999-181664 W 19990915

AB The authors disclose nucleic acid mols. encoding antigenic peptides from MAGE mols. that bind to HLA. In one example, the nucleic acid codes for the peptide GVDGREHTV which binds to HLA-A2. The nucleic acid mols. and the encoded antigenic peptides are useful for diagnosing and treating various pathol. conditions.

L11 ANSWER 3 OF 38 CAPLUS COPYRIGHT 2004 ACS on STN
TI Generation of cytotoxic T-cells to tumor antigens
AN 2003:197914 CAPLUS Full-text
DN 138:220360
TI Generation of cytotoxic T-cells to tumor antigens
IN Chaux, Pascal; Luiten, Rosalie; Demotte, Nathalie; Duffour,
Marie-Therese;
Lurquin, Christophe; Traversari, Catia; Stroobant, Vincent;
Cornelis, Guy;
Boon-Fallaur, Thierry; Van der Bruggen, Pierre
PA Ludwig Institute for Cancer Research, USA; Universite Catholique
de Louvain
SO U.S., 39 pp., Cont.-in-part of U.S. 6,407,063.
DT Patent
CODEN: USXXAM

LA	English	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
FAN.CNT 3						
PI	US 6531451	B1	20030311	US 1999-289350	19990409	
	US 6407063	B1	20020618	US 1998-165863	19981002	
	WO 2000020445	A2	20000413	WO 1999-181664	19990915	
<--	WO 2000020445	A3	20000713			
	W: AU, CA, CN, JP, KR, NZ, US					
	RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU,					
MC, NL,						
	PT, SE					
AU 9959929	A1	20000426	19990915			
<--	EP 1117679	A2	20010725	EP 1999-970091	19990915	
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE,					
MC, PT,	IE, FI					
	JP 2003518911	T2	20030617	JP 2000-574556	19990915	
	US 6710172	B1	20040323	US 2001-806769	20010730	
PRAI	US 1998-165863	A2	19981002			
	US 1999-289350	A	19990409			
	WO 1999-181664	W	19990915			
AB	The authors disclose a method for generation of cytotoxic T lymphocyte (CTL) clones. These CTL comprise clones that have been isolated by successive steps of stimulation and testing with different antigen presenting cells; these cells utilize various expression systems (e.g., from recombinant Yersinia, recombinant Salmonella, or recombinant viruses) for presentation of cognate antigen by HLA class I complexes. In particular, the present invention relates to isolated CTL clones that are specific for WAGE-1 and MAGE-4.					
RE.CNT 19	THERE ARE 19 CITED REFERENCES AVAILABLE FOR THIS RECORD					
	ALL CITATIONS AVAILABLE IN THE RE FORMAT					
L11	ANSWER 4 OF 38 CAPLUS COPYRIGHT 2004 ACS on STN					
TI	Method of inducing an immunological CTL response by lymphatic system					
	delivery of peptide vaccine					
AN	2002:52003 CAPLUS Full-text					
DN	136:117371					
TI	Method of inducing an immunological CTL response by lymphatic system					
	delivery of peptide vaccine					
IN	Kundig, Thomas M.; Simard, John J. L.					
PA	Switz.					
SO	U.S. Pat. Appl. Publ., 48 pp., Cont.-in-part of U. S. Ser. No. 380,534.					
DT	CODEN: USXXCO					
Patent	LA English					
FAN.CNT 7						
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE		
PI	US 2002007173	A1	20020117	US 2001-776232	20010202	
	WO 9902183	A2	19990121	WO 1998-0514289	19980710	

in the mammal's lymphatic system is maintained over time sufficient to maintain the immunol. CTL response. Also disclosed is an article of manufacture for delivering an antigen that induces a CTL response in an animal. The antigen can be used in vaccines for cancer or infection.

L11 ANSWER 5 OF 38 CAPLUS COPYRIGHT 2004 ACS on STN
 TI MAGE-3 peptides presented by HLA class II molecules
 DN 2001:687434 CAPLUS Full-text
 AN 135:256119
 TI MAGE-3 peptides presented by HLA class II molecules
 IN Chau, Pascal; Stroobant, Vincent; Boon-Falleur, Thierry; Van der Bruggen, Pierre; Thielemans, Kris; Kurthals, Jurgen
 PA Ludwig Institute for Cancer Research, USA; Vrije Universiteit Brussel
 SO U.S., 49 pp., Cont.-in-part of U.S. 5,965,535.
 DT Patent
 LA English
 FAN.CNT 4

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 6291430	B1	20010918	US 1998-166448	19981005
US 5965535	A	19991012	US 1997-928615	19970912
ZA 9808124	A	19990305	ZA 1998-8124	19980904
US 6369211	B1	20020409	US 1999-348933	19990707
WO 2000020581	A1	20000413	WO 1999-US21230	19990915

W: AU, JP
 RW: AT, BE, CH, CV, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL,
 PT, SE
 AU 9960420 A1 20000426 AU 1999-60420 19990915

<-- EP 1119623 A1 20010801 EP 1999-970121 19990915
 R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
 IE, FI
 US 6716809 B1 20040406 US 1999-396315 19990915
 US 6426217 B1 20020730 US 2000-697884 20001027
 US 2003170792 A1 20030911 US 2002-170832 20020612
 PRAI US 1997-928615 A2 19970912
 US 1998-166448 A 19981005
 WO 1999-US21230 W 19990915
 US 2000-697884 A3 20001027

AB The invention describes HLA class II binding peptides encoded by the MAGE-3 tumor associated gene, as well as nucleic acids encoding such peptides and antibodies relating thereto. The peptides stimulate the activity and proliferation of CD4+ T lymphocytes. Methods and products also are provided for diagnosing and treating conditions characterized by expression of the MAGE-3 gene.

RE.CNT 27 THERE ARE 27 CITED REFERENCES AVAILABLE FOR THIS RECORD

ALL CITATIONS AVAILABLE IN THE RE FORMAT

L11 ANSWER 6 OF 38 CAPLUS COPYRIGHT 2004 ACS on STN
 TI DNA and protein sequence of tumor associated antigen gene 3.8 and its
 AN 2001:427335 CAPLUS Full-text
 DN 135:32376
 TI DNA and protein sequence of tumor associated antigen gene 3.8 and its
 IN Martelange, Valerie; De Smet, Charles; Boon-Falleur, Thierry
 PA Ludwig Institute for Cancer Research, USA
 SO U.S., 34 pp., Cont.-in-part of U.S. Ser. No. 122,989, abandoned.
 DT Patent
 LA English
 FAN.CNT 2

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 6245525	B1	20010612	US 1998-183706	19981030
WO 9953061	A2	19991021	WO 1999-US8163	19990414
WO 9953061	A3	20000323		
W: AU, CA, CN, JP, KR, NZ, ZA RW: AT, BE, CH, CV, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE AU 9935603 A1 19991101 AU 1999-35603 19990414				
EP 1073734 A2 20010207 EP 1999-917493 19990414 R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI JP 2002511266 T2 20020416 JP 2000-543609 19990414 US 6303756 B1 20011016 US 2000-567995 20000510 US 2002115142 A1 20020822 US 2001-923831 20010807 PRAI US 1998-122989 B2 19980727 US 1998-60706 A 19980415 US 1998-183706 A 19981030 US 1998-183789 A 19981030 WO 1999-US8163 W 19990414 US 2000-567995 A3 20000510				

AB The invention provides the cDNA and deduced protein sequence of tumor associated gene sdp3.8 (HEGA) from human sarcoma cell line LB-23. The sdp3.8 gene is expressed in normal testis tissue and several tumoral cells. This invention also provides the the predicted HLA binding motifs in HAGE(sdp3.8) peptides and the gene bank search results of HAGE (sdp3.8) sequence homologs. Methods and products also are provided for diagnosing and treating conditions characterized by expression of a sdp3.8 gene product.

RE.CNT 39 THERE ARE 39 CITED REFERENCES AVAILABLE FOR THIS RECORD

ALL CITATIONS AVAILABLE IN THE RE FORMAT

L11 ANSWER 7 OF 38 CAPLUS COPYRIGHT 2004 ACS on STN
 TI MAGE-A1 peptides presented by HLA class II molecules

AN 2000:911297 CAPLUS Full-text
DN 134:70363
TI MAGE-A1 peptides presented by HLA class II molecules
IN Van Snick, Jacques; Lethe, Bernard; Chauv, Pascal; Boon-Falleur, Thierry;
PA van der Bruggen, Pierre
SO Ludwig Institute for Cancer Research, USA
PCT Int. Appl., 78 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2000078806	A1	20001228	WO 2000-US16287	20000614

W: AU, CN, JP, KR, NZ
RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE
EP 1224216
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, IE, FI, CY
PRAI US 1999-336091 A 19990618
WO 2000-US16287 W 20000614

AB The invention describes HLA class II binding peptides encoded by the MAGE-A1 tumor associated gene, as well as nucleic acids encoding such peptides and antibodies relating thereto. The peptides stimulate the activity and proliferation of CD4+ T lymphocytes. Methods and products also are provided for diagnosing and treating conditions characterized by expression of the MAGE-A1 gene.

RE.CNT 11 THERE ARE 11 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L11 ANSWER 8 OF 38 CAPLUS COPYRIGHT 2004 ACS on STN
TI HLA-A2.1/kb Transgenic Murine Dendritic Cells Transduced with an Adenovirus Encoding Human gp100 Process the Same A2.1-Restricted Peptide
Epitopes as Human Antigen-Presenting Cells and Elicit A2.1-Restricted
Peptide-Specific CTL
AN 2000:676406 CAPLUS Full-text
DN 134:40759
TI HLA-A2.1/kb Transgenic Murine Dendritic Cells Transduced with an Adenovirus Encoding Human gp100 Process the Same A2.1-Restricted Peptide
Epitopes as Human Antigen-Presenting Cells and Elicit A2.1-Restricted
Peptide-Specific CTL
AU Yang, Sixun; Linette, Gerald P.; Longenrich, Simonne; Roberts, Bruce L.;
CS Division of Hematology-Oncology, Department of Medicine, Massachusetts General Hospital, Harvard Medical School, Boston, MA, 02114, USA

SO Cellular Immunology (2000), 204(1), 29-37
CODEN: CLIMB8; ISSN: 0008-8749
PB Academic Press
DT Journal
LA English
AB HLA-A2.1/kb transgenic mice (A2.1/kb mice) were used to investigate the processing of human gp100 melanoma antigen by murine antigen presenting cells (APC). Bone marrow-derived dendritic cells (DC) from A2.1/kb mice were transduced with adenovirus encoding human gp100 (Ad2/hugp100v2). The Ad2/hugp100v2-transduced DC express human gp100, as documented by immunoperoxidase staining. Flow cytometric analysis demonstrates that Ad vector transduction does not downregulate expression of several markers, including MHC class I. We show that Ad2/hugp100v2-transduced DC are recognized by peptide-specific, A2.1-restricted CTL, suggesting correct processing and presentation of the hugp100 antigen by murine DC. To assess dominance among the various A2.1-restricted epitopes encoded by hugp100, A2.1/kb transgenic mice were immunized with Ad2/hugp100v2-transduced DC. Resulting effector cytotoxic T lymphocytes (CTL) were assayed for peptide specificity using a panel of six synthetic peptides known to encode A2.1-restricted epitopes of human gp100 (denoted G154, G177, G209, G280, G457, G476). CTL obtained from Ad2/hugp100v2-transduced DC immunized A2.1/kb mice lysed target cells presenting five of the six epitopes, supporting the observation that murine cells correctly process the hugp100 antigen. The immunogenicity of individual gp100 epitopes correlates with their binding affinity to A2.1. CTL generated from A2.1/kb mice immunized with Ad2/hugp100v2-transduced DC also specifically recognize A2.1/gp100+ human melanoma cells. These data suggest that murine APC process and present the same set of HLA-restricted peptides, similar to human APC. HLA transgenic mice serve as a useful model system to study class I-restricted epitopes of human tumor-associated antigens. (C) 2000 Academic Press.

RE.CNT 42 THERE ARE 42 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L11 ANSWER 9 OF 38 CAPLUS COPYRIGHT 2004 ACS on STN
TI Microparticles for delivery of nucleic acid
AN 2000:645832 CAPLUS Full-text
DN 133:256752
TI Microparticles for delivery of nucleic acid
IN Lunsford, Lynn B.; Putnam, David; Hedley, Mary Lynne
PA Zycos Inc., USA
SO PCT Int. Appl., 96 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 2

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2000053161	A2	20000914	WO 2000-US6578	20000310

W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU,

HU, ID, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
 CY, DE, RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, CG, CI, CM, GN, GW, ML, MR, NE, SN, TD, TG
 B3, CF, EP 1161227 A2 20011212 EP 2000-919403 20000310
 MC, PT, R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, IE, SI, LT, LV, FI, RO
 JP 2002538196 T2 20021112 JP 2000-603650 20000310
 US 2002182258 A1 20021205 US 2001-909460 20010718
 PRAI US 1998-266463 A2 19990311
 US 1999-321346 A2 19990527
 US 1997-35983P P 19970122
 US 1998-3253 B2 19980106
 WO 1998-US1499 A2 19980122
 WO 2000-US6578 W 20000310
 AB A prepn. of microparticles made up of a polymeric matrix, a nucleic acid expression vector, and a lipid is disclosed. The polymeric matrix includes one or more synthetic polymers having a solubility in water of less than about 1 mg/L. At least 90 % of the microparticles have a diameter less than about 100 µ. The nucleic acid is either RNA, at least 50 % of which is in the form of closed circles, or circular DNA plasmid mols., at least 50 % of which are supercoiled.

ANSWER 10 OF 38 CAPLUS COPYRIGHT 2004 ACS on STN
 TI Protein and cDNA sequences of Tyrosine kinase receptor EphA3 and diagnostic and therapeutic uses thereof
 AN 2000:608898 CAPLUS Full-text
 DN 133:191990
 TI Protein and cDNA sequences of Tyrosine kinase receptor EphA3 and diagnostic and therapeutic uses thereof
 IN Chiari, Rita; Coullie, Pierre; Boon-Fallieur, Thierry
 PA Ludwig Institute for Cancer Research, USA
 SO PCT Int. Appl., 106 pp.
 DT Patent
 LA English
 FAN, CNT 1
 PATENT NO. KIND DATE APPLICATION NO. DATE
 PI WO 2000050589 A1 20000831 WO 2000-US4326 20000218
 W: AU, JP, US
 RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU,

MC, NL, PT, SE
 EP 1165776 A1 20020102 EP 2000-910250 20000218
 R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE,
 MC, PT, IE, FI
 JP 2002536996 T2 20021105 JP 2000-601153 20000218
 PRAI US 1999-121170P P 19990222
 US 1999-158566P P 19991008
 WO 2000-US4326 W 20000218
 AB The invention describes HLA Class II binding peptides encoded by the EphA3 tumor associated gene, as well as nucleic acids encoding such peptides and antibodies relating thereto. The peptides stimulate the activity and proliferation of CD4+T lymphocytes. Methods and products also are provided for diagnosing and treating conditions characterized by expression of the EphA3 gene.

RE.CNT 8 THERE ARE 8 CITED REFERENCES AVAILABLE FOR THIS RECORD
 ALL CITATIONS AVAILABLE IN THE RE FORMAT

L11 ANSWER 11 OF 38 CAPLUS COPYRIGHT 2004 ACS on STN
 TI Protein preparations
 AN 2000:592741 CAPLUS Full-text
 DN 133:191988
 TI Protein preparations
 IN Shinbara, Naoki; Udono, Heiichiro; Yui, Katsuyuki
 PA Sumitomo Electric Industries, Ltd., Japan
 SO PCT Int. Appl., 72 pp.
 DT Patent
 LA Japanese
 FAN, CNT 1
 PATENT NO. KIND DATE APPLICATION NO. DATE
 PI WO 2000049041 A1 20000824 WO 2000-JP941 20000218
 W: JP, US
 RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU,
 MC, NL, PT, SE
 PRAI JP 1999-41535 A 19990219
 AB A fused protein which is capable of inducing a potent cellular immune response and thus useful in treating or preventing infectious diseases such as malaria or diseases such as cancer; and medicinal comps. containing this fused protein as the active ingredient. Namely, a fused protein composed of a peptide containing a CTL epitope recognized by cytotoxic T cells and a protein containing the ATPase domain of heat shock protein; medicinal comps. containing this fused protein as the active ingredient; a DNA encoding the fused protein; an expression vector containing this DNA; and a transformatant carrying this expression vector. The most efficacious way for administering the medicinal comps. is i.v. injection into a living body.

RE.CNT 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD
 ALL CITATIONS AVAILABLE IN THE RE FORMAT

L11 ANSWER 12 OF 38 CAPLUS COPYRIGHT 2004 ACS on STN
 TI Tumor rejection antigens MAGE-A10 and MAGE-A8 able to complex
 with HLA-A2.1
 AN 2000:384405 CAPLUS Full-text
 DN 133:29604
 TI Tumor rejection antigens MAGE-A10 and MAGE-A8 able to complex
 with HLA-A2.1
 IN Huang, Lan-Qing; van Pel, Aline; Brasseur, Francis; De Plaen,
 Etienne;
 PA Ludwig Institute for Cancer Research, USA
 SO PCT Int. Appl., 80 pp.
 DT CODEN: PIXXD2
 LA Patent
 EN English
 FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2000032769	A2	20000608	WO 1999-1B2018	19991126
WO 2000032769	A3	20001019		
W: AU, JP, US				
RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL,				
PT, SE				
EP 1131426	A2	20010912	EP 1999-958438	19991126
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,				
IE, FI				
JP 2002531088	T2	20020924	JP 2000-585400	19991126
AU 765669	B2	20030925	AU 2000-15806	19991126
PRAI GB 1998-26143	A	19981127		
WO 1999-1B2018	W	19991126		
AB Autologous cytolytic T lymphocyte clones are obtained from a melanoma patient LB 1751, which recognize and hallow the identification of hitherto unknown HLA-A2.1-presented tumor rejection antigens encoded by MAGE-A10 and MAGE-A8. The CDNA and deduced amino acid sequences of MAGE-A10 and MAGE-A8 are provided.				

L11 ANSWER 13 OF 38 CAPLUS COPYRIGHT 2004 ACS on STN
 TI Dendritic cells promote T-cell survival or death depending upon their maturation state and presentation of antigen
 AN 2000:382923 CAPLUS Full-text
 DN 134:55474
 TI Dendritic cells promote T-cell survival or death depending upon their maturation state and presentation of antigen
 AU Mailliard, Robbie B.; Dallal, Ramsey M.; Son, Young-Ik; Lotze, Michael T.
 CS Biologic Therapeutics Program, University of Pittsburgh Cancer Institute, Pittsburgh, PA, 15213, USA

SO Immunological Investigations (2000), 29(2), 177-185
 CODEN: IIVINE; ISSN: 0882-0139
 PB Marcel Dekker, Inc.
 DT Journal
 LA English
 AB

A study was conducted to examine dendritic cells (DCs) at different stages of maturation and to evaluate their effects on the survival of activated lymphocytes in the setting of melanoma. Findings suggest that DCs which are unable to effectively present antigen and co-stimulatory signals may be ineffective in maintaining the survival of activated effector T cells. Ex vivo approaches may allow cultured DC to acquire antigen effectively while being spared the immunosuppressive influences of the tumor environment. It is speculated that in the in vivo setting, the natural killer cells play a critical role, supplying DCs with a source of apoptotic antigen at the site of tumor. The cytokine IL-18 may be involved by preferentially enhancing the effectiveness of NK-mediated killing through the Fas/FasL apoptotic pathway, providing a necessary bridge between innate and acquired immunity. Designing strategies to enhance delivery of autologous tumor antigens to DCs in the form of apoptotic bodies or to deliver DCs directly to tumors may have great therapeutic impact. DCs may promote specific T-cell reactivity to unknown immunogenic epitopes, enhance the survival and function of these immune effector cells, and modify the local microenvironment by regulating the resident stroma including blood vessels, matrix and fibroblasts.

RE.CNT 40 THERE ARE 40 CITED REFERENCES AVAILABLE FOR THIS RECORD
 ALL CITATIONS AVAILABLE IN THE RE FORMAT

L11 ANSWER 14 OF 38 CAPLUS COPYRIGHT 2004 ACS on STN
 TI Dendritic cells infected with a vaccinia vector carrying the human gp100 gene simultaneously present multiple specificities and elicit high-affinity T cells reactive to multiple epitopes and restricted by HLA-A2 and -A3

AN 2000:261711 CAPLUS Full-text
 DN 133:29405
 TI Dendritic cells infected with a vaccinia vector carrying the human gp100 gene simultaneously present multiple specificities and elicit high-affinity T cells reactive to multiple epitopes and restricted by HLA-A2 and -A3

AN 2000:261711 CAPLUS Full-text
 DN 133:29405
 TI Dendritic cells infected with a vaccinia vector carrying the human gp100 gene simultaneously present multiple specificities and elicit high-affinity T cells reactive to multiple epitopes and restricted by HLA-A2 and -A3

AU Yang, Sixun; Kittlesen, David; Slingsluff, Craig L., Jr.; Vervaeke, Carol

E.; Seigler, Hilliard F.; Darrow, Timothy L.
 CS Department of Surgery, Duke University Medical center, Durham, NC, 27710, USA

SO Journal of Immunology (2000), 164(8), 4204-4211
 CODEN: JOIM33; ISSN: 0022-1767

PB American Association of Immunologists
 DT Journal
 LA English

AB To investigate the ability of human dendritic cells (DC) to process and present multiple epitopes from the gp100 melanoma tumor-associated Ags (TAA), DC from melanoma patients expressing HLA-A2 and HLA-A3 were pulsed with gp100-derived peptides G9154, G9209, or G9280 or were infected with a vaccinia vector (Vac-Pme1/gp100) containing the gene for gp100 and used to elicit CTL of PBL with autologous PBL. CTL were also generated after stimulation of autologous tumor. CTL induced with autologous tumor stimulation demonstrated HLA-A2-restricted, gp100-specific lysis of autologous and allogeneic tumors and no lysis of HLA-A3-expressing, gp100+ target cells. CTL generated by G9154, G9209, or G9280 peptide-pulsed, DC-lysed, HLA-A2-matched EBV transformed B cells pulsed with the corresponding peptide. CTL generated by Vac-Pme1/gp100-infected DC (DC/Pme1) lysed HLA-A2- or HLA-A3-matched B cell lines pulsed with the HLA-A2-restricted G9154, G9209, or G9280 or with the HLA-A3-restricted G917 peptide derived from gp100. Furthermore, these DC/Pme1-induced CTL demonstrated potent cytotoxicity against allogeneic HLA-A2- or HLA-A3-matched gp100+ melanoma cells and autologous tumor. The authors conclude that DC-expressing TAA present multiple gp100 epitopes in the context of multiple HLA class I-restricting alleles and elicit CTL that recognize multiple gp100-derived peptides in the context of multiple HLA class I alleles. The data suggest that for tumor immunotherapy, genetically modified DC that express an entire TAA may present the full array of possible CTL epitopes in the context of all possible HLA alleles and may be superior to DC pulsed with limited nos. of defined peptides.

RE.CNT 44 THERE ARE 44 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L11 ANSWER 15 OF 38 CAPLUS COPYRIGHT 2004 ACS on STN
TI Isolated peptides which bind to HLA-B35 molecules
AN 2000:260042 CAPLUS Full-text
DN 132:292710
TI Isolated peptides which bind to HLA-B35 molecules
IN Ooms, Anne; De Giovanni, Gerard; Morel, Sandra; van Den Eynde, Benoit;

PA Boon-Falleur, Thierry
SO Ludwig Institute for Cancer Research, USA
PCT Int. Appl., 20 pp.
CODEN: PIXXD2

DT Patent
LA English
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2000021551	A1	20000420	WO 1999-US23038	19991004

MC, NL, W: AU, CA, CN, JP, KR, NZ
RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU,

<--- PT, SE
US 6667037 B1 20031223 US 1998-169717 19981009
CA 2326675 AA 20000420 CA 1999-2326675 19991004
AU 9962865 A1 20000501 AU 1999-62865 19991004

<--- AU 764550 B2 20030821
EP 1123108 A1 20010816
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE,
MC, PT, IE, FI
NZ 510902 A 20020927 NZ 1999-510902 19991004
PRAI US 1998-169717 A 19981009
WO 1999-US23038 W 19991004
OS MARPAT 132:292710
AB The invention relates to peptides which bind to HLA-B35 mols., leading to recognition and lysis of the resulting complexes by cytolytic T cells. Also a part of the invention are nucleic acid mols. which encode these peptides, and uses of each of these. The mols. are derived, in some cases, from tyrosinase, and portions of the tyrosinase mol., and portions of nucleic acid mols. which encode tyrosinase are also a part of the invention.
RE.CNT 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L11 ANSWER 16 OF 38 CAPLUS COPYRIGHT 2004 ACS on STN
TI MAGE-A3 peptides presented by HLA class II molecules and diagnosis and treatment of MAGE-A3-associated disease
AN 2000:241477 CAPLUS Full-text
DN 132:278179

TI MAGE-A3 peptides presented by HLA class II molecules and diagnosis and treatment of MAGE-A3-associated disease

IN Chau, Pascal; Stroobant, Vincent; Boon-Falleur, Thierry; van der Bruggen, Pierre; Schultz, Erwin S.; Van Snick, Jacques; Bernard, Thielemans, Kris; Corthals, Jurgen; Heirman, Carlo
PA Ludwig Institute for Cancer Research, USA; Vrije Universiteit Brussel
SO PCT Int. Appl., 119 pp.
CODEN: PIXXD2

DT Patent
LA English
FAN.CNT 4

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2000020381	A1	20000413	WO 1999-US21230	19990915

MC, NL, W: AU, JP
RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU,

PT, SE
US 6291430 B1 20010918 US 1998-166448 19981005
AU 9960420 A1 20000426 AU 1999-60420 19990915

<--- EP 1119623 A1 20010801 EP 1999-970121 19990915
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE,
MC, PT, IE, FI
PRAI US 1998-166448 A 19981005

US 1997-928615 A2 19970912
WO 1999-US21230 W 19990915

AB The invention describes HLA class II-binding peptides encoded by the MAGE-A3 tumor associated gene, as well as nucleic acids encoding such peptides and antibodies relating thereto. The peptides stimulate the activity and proliferation of CD4+T lymphocytes. Methods and products also are provided for diagnosing and treating conditions characterized by expression of the MAGE-A3 gene.

RE.CNT 9 THERE ARE 9 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L11 ANSWER 17 OF 38 CAPLUS COPYRIGHT 2004 ACS on STN
TI Peptides related to an IGF-II-R epitope, polynucleotides encoding the
peptides, and their use in immunomodulation
AN 2000:241289 CAPLUS Full-text
DN 132:292704

TI Peptides related to an IGF-II-R epitope, polynucleotides encoding the
peptides, and their use in immunomodulation
IN Nicolette, Charles A.
PA Genzyme Corporation, USA
SO PCT Int. Appl., 116 pp.
CODEN: PIXXD2

DT Patent
LA English
FAN.CNT 2

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 2000020457	A1	20000413	WO 1999-US23167	19991004
W:	AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, MD, RU, TJ, TM			
RW:	GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG			
US 6306640	B1	20011023	US 1999-249272	19990211
CA 2345477	AA	20000413	CA 1999-2345477	19991004
EP 1119584	A1	20010801	EP 1999-954742	19991004
R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, IE, SI, LT, LV, FI, RO			
JP 2002526102	T2	20020820	JP 2000-574568	19991004
AU 767391	B2	20031106	AU 2000-11021	19991004

US 2004014697 A1 20040122
US 1998-103229P P 19981005
US 1999-114811P P 19990105
US 1999-120001P P 19990211
US 1999-120002P P 19990211
US 1999-249272 A3 19990211
WO 1999-US23167 W 19991004

AB The present invention provides novel synthetic antigenic peptide epitopes, related to IGF-II-R. These synthetic antigenic peptide epitopes are designed for enhanced binding to MHC mols., and have enhanced immunoregulatory properties relative to their natural counterparts. The synthetic antigenic peptide epitopes of the invention are useful in a variety of methods of modulating an immune response to the synthetic antigenic peptide epitopes and thus to the corresponding native antigenic determinant. Synthetic antigenic peptide epitopes of the invention thus find application in a wide variety of immunomodulatory protocols, including methods to induce or increase an immune response, as well as in methods to suppress or reduce an undesirable immune response, to a corresponding natural epitope.

RE.CNT 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L11 ANSWER 18 OF 38 CAPLUS COPYRIGHT 2004 ACS on STN
TI Tumor antigens and CTL clones isolated by a novel procedure
AN 2000:241272 CAPLUS Full-text
DN 132:292703

TI Tumor antigens and CTL clones isolated by a novel procedure
IN Chau, Pascal; Luiten, Rosalie; Demotte, Nathalie; Duffour, Marie-therese; Christophe; Traversari, Catia; Stroobant, Vincent; Cornelis, Guy
R.; Boon-falleur, Thierry; Van Der Bruggen, Pierre; Schultz, Warnier, Guy; et al.
PA Belg.
SO PCT Int. Appl., 99 pp.
CODEN: PIXXD2

DT Patent
LA English
FAN.CNT 3

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 2000020445	A2	20000413	WO 1999-IB1664	19990915
W:	AU, CA, CN, JP, KR, NZ, US			
RW:	AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE			
US 6407063	B1	20020618	US 1998-165863	19981002
US 6531451	B1	20030311	US 1999-289350	19990409
AU 9959929	A1	20000426	AU 1999-59929	19990915
EP 1117679	A2	20010725	EP 1999-970091	19990915
R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE,			

MC, PT, IE, FI
JP 2003518911 T2 20030617 JP 2000-574556 19990915
US 6710172 B1 20040323 US 2001-806769 20010730
PRAI US 1998-165863 A 19981002
US 1999-289350 A 19990409
WO 1999-181664 W 19990915

AB The present invention relates to isolation of cytotoxic T lymphocyte (CTL) clones. In particular, the present invention relates to isolated CTL clones that are specific for proteins of the MAGE family. The CTL clones of the present invention have been isolated by successive steps of stimulation and testing of lymphocytes with antigen presenting cells which present antigens derived from different expression systems, e.g., from recombinant Versinia, recombinant Salmonella, or recombinant viruses. The present invention further relates to antigenic peptides as well as the peptide/HLA complexes which are recognized by the isolated CTL clones.

WO 1999-US20344 W 19990903

AB A tumor rejection antigen encoded by an alternative open reading frame of the macrophage colony stimulating factor gene that is expressed in renal cell carcinoma is identified and characterized. The antigen can be used in the diagnosis, prophylaxis and treatment of renal cell carcinoma. The antigen was identified as one recognized by cytotoxic T-lymphocytes and a cDNA was cloned by screening an expression library in 293-EBNA cells using cells expressing HLA-B*3501 and HLA-Cw*0401 genes from the cytotoxic T-lymphocytes. Sequencing of the cDNA showed that it was derived from a splice variant of the macrophage colony-stimulating factor transcript. AN HLA-B35-binding peptide of the antigen was identified. The antigen was found in normal renal tubular cells and hepatocytes but not in other major tissues tested. Expression was regulated independently from that of macrophage colony-stimulating factor.

RE.CNT 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L11 ANSWER 20 OF 38 CAPLUS COPYRIGHT 2004 ACS ON STN
TI The density of peptides displayed by dendritic cells affects immune responses to human tyrosinase and gp100 in HLA-A2 transgenic mice
AN 2000:146226 CAPLUS Full-text
DN 132:292403
TI The density of peptides displayed by dendritic cells affects immune responses to human tyrosinase and gp100 in HLA-A2 transgenic mice
AU Bullock, Timothy N. J.; Colella, Teresa A.; Engelhard, Victor H.
CS Department of Microbiology and Carter Immunology Center, University of Virginia, Charlottesville, VA, 22908, USA
SO Journal of Immunology (2000), 164(5), 2354-2361
PB CODEN: JOIMA3; ISSN: 0022-1767
DT American Association of Immunologists
LA English
AB Several HLA-A*0201-restricted peptide epitopes that can be used as targets for active immunotherapy have been identified within melanocyte differentiation proteins. However, uncertainty exists as to the most effective way to elicit CD8+ T cells with these epitopes in vivo. The authors report the use of transgenic mice expressing a derivative of HLA-A*0201, and dendritic cells, to enhance the activation of CD8+ T cells that recognize peptide epitopes derived from human tyrosinase and glycoprotein 100. The authors find that by altering the cell surface d. of the immunizing peptide on the dendritic cells, either by pulsing with higher concns. of peptide, or by changing the MHC-peptide-binding affinity by generating variants of the parent peptides, the size of the activated CD8+ T cell populations can be modulated in vivo. Significantly, the d. of peptide that produced the largest response was less than the maximum d. achievable through short-term peptide pulsing. The authors have also found, however, that while some variant peptides are effective at eliciting both primary and recall CD8+

MC, PT, IE, FI
JP 2003518911 T2 20030617 JP 2000-574556 19990915
US 6710172 B1 20040323 US 2001-806769 20010730
PRAI US 1998-165863 A 19981002
US 1999-289350 A 19990409
WO 1999-181664 W 19990915

AB The present invention relates to isolation of cytotoxic T lymphocyte (CTL) clones. In particular, the present invention relates to isolated CTL clones that are specific for proteins of the MAGE family. The CTL clones of the present invention have been isolated by successive steps of stimulation and testing of lymphocytes with antigen presenting cells which present antigens derived from different expression systems, e.g., from recombinant Versinia, recombinant Salmonella, or recombinant viruses. The present invention further relates to antigenic peptides as well as the peptide/HLA complexes which are recognized by the isolated CTL clones.

MC, NL, PT, SE
AU 9960273 A1 20000327 AU 1999-60273 19990903
EP 1109568 A1 20010627 EP 1999-968629 19990903
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE,
MC, PT, IE, FI
PRAI US 1998-99077P P 19980904
US 1998-99077

L11 ANSWER 19 OF 38 CAPLUS COPYRIGHT 2004 ACS ON STN
TI A tumor rejection antigen encoded by an alternative open reading frame of the human macrophage colony-stimulating factor gene and its role in renal cell carcinomas
AN 2000:175691 CAPLUS Full-text
DN 132:220880
TI A tumor rejection antigen encoded by an alternative open reading frame of the human macrophage colony-stimulating factor gene and its role in renal cell carcinomas
IN Probst-Kepper, Michael; Van Den Eynde, Benoit; Boon-Falleur, Thierry
PA Ludwig Institute for Cancer Research, USA
SO PCT Int. Appl., 74 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

PI WO 2000013699 A1 20000316 APPLICATION NO. DATE

WO 1999-US20344 19990903
W: AU, JP, US
RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU,
PT, SE
AU 9960273 A1 20000327 AU 1999-60273 19990903
EP 1109568 A1 20010627 EP 1999-968629 19990903
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE,
MC, PT, IE, FI
PRAI US 1998-99077P P 19980904
US 1998-99077

T cell responses that can recognize the parental epitope, other variant epitopes lead to the outgrowth of CD8+ T cells that only recognize the variant. HLA-A*0201 transgenic mice provide an important model to define which peptide variants are most likely to stimulate CD8+ T cell populations that recognize the parental, melanoma-specific peptide.

RE.CNT 56 THERE ARE 56 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L11 ANSWER 21 OF 38 CAPLUS COPYRIGHT 2004 ACS on STN
TI Endogenous retrovirus tumor associated nucleic acids and

antigens
AN 2000:98598 CAPLUS Full-text
DN 132:150600

TI Endogenous retrovirus tumor associated nucleic acids and
antigens

IN Coullie, Pierre; Boon-Falleur, Thierry
PA Ludwig Institute for Cancer Research, USA
SO PCT Int. Appl., 78 pp.
CODEN: PIXXD2

DT Patent
LA English
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2000006598	A1	20000210	WO 1999-US16236	19990715

<--
MC, NL,

W: AU, JP
RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU,

PT, SE
AU 9950028

EP 1100817

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE,

MC, PT,

JP 2002521051
US 1998-124398
US 1998-91243P
WO 1999-US16236

AB The invention describes HERV-AVL3-B tumor assocd. genes, including fragments and biol. functional variants thereof. Also included are polypeptides and fragments thereof encoded by such genes, and antibodies relating thereto. Methods and products also are provided for diagnosing and treating conditions characterized by expression of a HERV-AVL3-B gene product.

RE.CNT 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L11 ANSWER 22 OF 38 CAPLUS COPYRIGHT 2004 ACS on STN
TI Use of retroviral triplex-forming DNA sequences in vectors for

enhancement
of transformation and gene expression

AN 1999:708933 CAPLUS Full-text
DN 131:332951

TI Use of retroviral triplex-forming DNA sequences in vectors for

enhancement

of transformation and gene expression
IN Charneau, Pierre; Zennou, Veronique; Firat, Huseyin
PA Institut Pasteur, Fr.
SO PCT Int. Appl., 103 pp.
CODEN: PIXXD2

DT Patent
LA French
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9955892	A1	19991104	WO 1999-FR974	19990423

<--
CU, CZ,

W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN,

DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL,

IN, IS,

JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD,

MG, MK,

MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK,

SL, TJ,

TM, TR, TT, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY,

KG, KZ,

MD, RU, TJ, TM
RW: GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW, AT, BE, CH, CY,

DE, DK,

ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ,

CF, CG,

CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG
FR 2777909

<--
FR 2777909

CA 2326719

CA 1999-2326719

EP 1071804

EP 1999-915829

MC, PT,

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE,

IE, FI
JP 2002512804

US 6682907

JP 2000-546035

PRAI FR 1998-5197

WO 1999-FR974

AB The invention concerns a recombinant vector characterized in that it comprises a polynucleotide comprising a central initiation cis-active region (a.k.a., central polypurine tract, cPPT) and a termination cis-active region (CTS), said regions being of retroviral or retroviral-like origin, said vector further comprising a predetd. nucleotide sequence (transgene or nucleotide sequence of interest) and retranscription regulating, expressing and packaging signals of retroviral or retroviral-like origin. The presence of the triple helix-forming, cPPT- and CTS-containing in retroviral vectors, enhances transformation and import of the vector into the cell nucleus. Thus, an HIV-based vector containing a melanoma polypeptide

protein gene was prepared. Mice immunized with this vector displayed and enhanced CTL response.
 THERE ARE 9 CITED REFERENCES AVAILABLE FOR THIS RECORD
 ALL CITATIONS AVAILABLE IN THE RE FORMAT

RE.CNT 9

L11 ANSWER 23 OF 38 CAPLUS COPYRIGHT 2004 ACS on STN
 TI H-2 class I knockout, HLA-A2.1-transgenic mice. A versatile animal model for preclinical evaluation of antitumor immunotherapeutic strategies
 AN 1899:677539 CAPLUS Full-text
 DN 132:48743
 TI H-2 class I knockout, HLA-A2.1-transgenic mice. A versatile animal model for preclinical evaluation of antitumor immunotherapeutic strategies
 AU Firat, Huseyin; Garcia-Pons, Francisco; Tourdot, Sophie; Pascolo, Steve; Scardino, Antonio; Garcia, Zacarias; Michel, Marie-Louise; Jack, Ralph Williams; Jung, Gunther; Kosmatopoulos, Konstadinos; Mateo, Luis; Suhrbier, Andreas; Lemonnier, Francois A.; Langlade-Demoyen, Pierre
 CS Unite Immunitaire Cellulaire Antivirale, Dep. SIDA-Retrovirus, Institut Pasteur, Paris, F-75724, Fr.
 SO European Journal of Immunology (1999), 29(10), 3112-3121
 CODEN: EJIMAF; ISSN: 0014-2980
 PB Wiley-VCH Verlag GmbH
 DT Journal
 LA English
 AB H-2 class I-neg., HLA-A2.1-transgenic HHD mice were used for a comparative evaluation of the immunogenicity of HLA-A2.1-restricted human tumor-associated cytotoxic T lymphocyte (CTL) epitopes. A hierarchy was established among these peptides injected into mice in incomplete Freund's adjuvant which correlates globally with their capacity to bind and stabilize HLA-A2.1 mols. Co-injection of a helper peptide enhanced most CTL responses. In contrast, classical HLA class I-transgenic mice which still express their own class I mols. did not, in most cases, develop HLA-A2.1-restricted CTL responses under the same exptl. conditions. Different monopeptide immunization strategies of acceptable clin. usage were compared in HHD mice. Recombinant ty-virus-like particles, or DNA encoding epitopes fused to the hepatitis B virus middle envelope protein gave the best results. Using this latter approach and a melanoma-based polypeptide construct, CTL responses against 5 distinct epitopes could be elicited simultaneously in a single animal. Thus, HHD mice provide a versatile animal model for preclin. evaluation of peptide-based cancer immunotherapy.

RE.CNT 32

L11 ANSWER 24 OF 38 CAPLUS COPYRIGHT 2004 ACS on STN
 TI Genes expressed in tumors encoding tumor rejection antigen precursors and their diagnostic and therapeutic uses

AN 1999:673033 CAPLUS Full-text
 DN 131:321139
 TI Genes expressed in tumors encoding tumor rejection antigen precursors and their diagnostic and therapeutic uses
 IN Martelange, Valerie; De Smet, Charles; Boon-Falleur, Thierry
 PA Ludwig Institute for Cancer Research, USA
 SO PCT Int. Appl., 93 pp.
 CODEN: PIXXD2
 DT Patent
 LA English
 FAN.CNT 2

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9953061	A2	19991021	WO 1999-US8163	19990414
WO 9953061	A3	20000323		
W: AU, CA, CN, JP, KR, NZ, ZA				
RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL,				
PT, SE				
US 6245525	B1	20010612	US 1998-183706	19981030
AU 9935603	A1	19991101	AU 1999-35603	19990414
EP 1073734	A2	20010207	EP 1999-917493	19990414
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,				
IE, FI				
JP 2002511266	T2	20020416	JP 2000-543609	19990414
US 1998-60706	A	19980415		
US 1998-122989	A	19980727		
US 1998-183706	A	19981030		
US 1998-183789	A	19981030		
WO 1999-US8163	W	19990414		

AB Genes encoding tumor rejection antigen precursors SAGE (sdph3.10), sdph3.5 and HAGE (sdph3.8) are cloned and their products characterized for therapeutic use. Methods and products also are provided for diagnosing and treating conditions characterized by expression of sdph3.10, sdph3.5 and/or sdph3.8 gene products. Genes specific to a sarcoma were identified by representational difference anal. Many were found to be genes normally associated with cell proliferation, and of the remainder, three showed ectopic expression in tumors, i.e. were expressed in a tumor, not in the corresponding normal tissue, but were expressed in other normal tissues. The genes showed normal expression in tissues of the reproductive system (uterus, mammary gland, testis) and skin.

L11 ANSWER 25 OF 38 CAPLUS COPYRIGHT 2004 ACS on STN
 TI Isolated multimeric complexes useful in analysis of T cells, peptides
 useful in making the complexes, and uses thereof
 AN 1999:641060 CAPLUS Full-text
 DN 131:285389
 TI Isolated multimeric complexes useful in analysis of T cells, peptides

useful in making the complexes, and uses thereof
 IN Romero, Pedro; Dunbar, Rod; Valmori, Daniela; Ogg, Graham;
 Cerrotini,
 Jean-charles; Cerundolo, Vincenzo
 PA Ludwig Institute for Cancer Research, USA; University of Oxford
 SO PCT Int. Appl., 91 pp.
 CODEN: PIXXD2
 DT Patent
 LA English
 FAN.CNT 1
 PATENT NO. KIND DATE APPLICATION NO. DATE

 PI WO 9950637 A2 19991007 WO 1999-056615 19990325
 <-- WO 9950637 A3 20000413
 W: AU, CA, JP
 RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU,
 MC, NL,
 PT, SE
 AU 9933654 A1 19991018 AU 1999-33654 19990325
 <--
 PRAI US 1998-49850 A 19980327
 WO 1999-056615 W 19990325
 AB The invention involves multicomponent complexes, which are
 useful in anal. of T cells. The complexes contain at least
 first and second binding partners, which bind to each other.
 The second binding partner engages a plurality of immune
 complexes, which comprise an MHC mol., a β 2 microglobulin mol.,
 and a peptide. Preferably, there are at least four of these
 immune complexes per multicomponent complex. These can be used
 to determine or to isolate cytolytic T cells. HLA-A*0201
 tetramers and Melan-A-derived peptides were used to measure the
 frequency of CD8+T cells in PBMCs of melanoma patients.

L11 ANSWER 26 OF 38 CAPLUS COPYRIGHT 2004 ACS on STN
 TI An HLA-A2 polypeptide vaccine for melanoma immunotherapy
 AN 1999:628118 CAPLUS Full-text
 DN 131:350041
 TI An HLA-A2 polypeptide vaccine for melanoma immunotherapy
 AU Mateo, Luis; Gardner, Joy; Chen, Qiyuan; Schmidt, Christopher;
 Down, Michelle; Elliott, Suzanne L.; Pye, Stephanie J.; Firat,
 Huseyin;
 Lemonnier, Francois A.; Cebon, Jonathon; Suhrbier, Andreas
 CS Australian Centre for International and Tropical Health and
 Nutrition,
 Co-operative Research Centre for Vaccine Technology, Queensland
 Institute
 of Medical Research and University of Queensland, Queensland,
 Australia
 SO Journal of Immunology (1999), 163(7), 4058-4063
 CODEN: JOIMA3; ISSN: 0022-1767
 P8 American Association of Immunologists
 DT Journal
 LA English

AB Epitope-based vaccination strategies designed to induce tumor-
 specific CD8 CTL are being widely considered for cancer
 immunotherapy. Here the authors describe a recombinant poxvirus
 vaccine that codes for 10 HLA-A2-restricted epitopes derived
 from 5 melanoma Ags conjoined in an artificial polypeptide or
 polytope construct. Target cells infected with the melanoma
 polytope vaccinia were recognized by 3 different epitope-
 specific CTL lines derived from HLA-A2 melanoma patients, and
 CTL responses to 7 of the epitopes were generated in at least
 one of 6 HLA-A2-transgenic mice immunized with the construct.
 CTL lines derived from vaccinated transgenic mice were also able
 to kill melanoma cells in vitro. Multiple epitopes within the
 polytope construct were therefore shown to be individually
 immunogenic, illustrating the feasibility of the polytope
 approach for melanoma immunotherapy. Tumor escape from CTL
 surveillance, through down regulation of individual tumor Ags,
 and MHC alleles, might be overcome by polytope vaccines, which
 simultaneously target multiple cancer Ags.

RE.CNT 53 THERE ARE 53 CITED REFERENCES AVAILABLE FOR THIS RECORD
 ALL CITATIONS AVAILABLE IN THE RE FORMAT

L11 ANSWER 27 OF 38 CAPLUS COPYRIGHT 2004 ACS on STN
 TI Establishment of gp100 and MART-1/Melan-A-specific cytotoxic T
 lymphocyte
 clones using in vitro immunization against preselected highly
 immunogenic
 melanoma cell clones
 AN 1999:600664 CAPLUS Full-text
 DN 132:106619
 TI Establishment of gp100 and MART-1/Melan-A-specific cytotoxic T
 lymphocyte
 clones using in vitro immunization against preselected highly
 immunogenic
 melanoma cell clones
 AU Kirkin, Alexei F.; Straten, Per thor; Hansen, Mia Riise;
 Barfoed, Annette;
 Dzhandzhugazyan, Karine N.; Zeuthen, Jesper
 CS Department of Tumour Cell Biology, Institute of Cancer Biology,
 Danish
 Cancer Society, Copenhagen, DK-2100, Den.
 SO Cancer Immunology Immunotherapy (1999), 48(5), 239-246
 CODEN: CIIMDN; ISSN: 0340-7004
 PB Springer-Verlag
 DT Journal
 LA English
 AB The induction of an in vitro T cell response against tumor-
 assocd. antigens with subsequent expansion of the individual
 cytotoxic T lymphocyte (CTL) clones still is not routine and the
 only tumor-associated antigen that has been found to easily
 induce the establishment of CTL clones is the MART-1/Melan-A
 antigen. In this paper, we describe a new approach for in vitro
 immunization based on the use of preselected melanoma cell
 clones. The human melanoma cell subline FM3.P was cloned and
 the immunol. properties of individual clones were compared.
 Melanoma cell clone FM3.29, having a high level of expression of
 melanoma differentiation antigens, as well as high levels of the
 HLA class I and class II antigens and adhesion mol.s., was used

for the establishment of a CTL line that was subsequently cloned. For optimization of the conditions of growth of established CTL clones, a particular melanoma subline FM3.D/40 was selected for supporting the proliferation of CTL clones. The majority of the established CTL clones recognized the melanoma-associated differentiation antigens gp100 and MART-1/Melan-A. Epitope anal. indicated that two different epitopes derived from gp100 (154-162 and 280-288) and a single epitope from MART-1/Melan-A (27-35) were recognized by these CTL clones. The gp100-specific CTL clones were found to be significantly more sensitive to the culture conditions than the MART-1/Melan-A-specific CTL clones. In addition, the presence of excess peptide in the culture medium induced autokilling of the gp100-specific, but not the MART-1/Melan-A-specific CTL clones. These results demonstrate that, by careful preselection of melanoma cell lines and clones both for the induction of CTL line from patients' peripheral blood lymphocytes and subsequent cloning, it is possible to obtain a large number of stable CTL clones even against such an inherently "difficult" differentiation antigen as gp100.

RE.CNT 29 THERE ARE 29 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L11 ANSWER 28 OF 38 CAPLUS COPYRIGHT 2004 ACS on STN
TI Mass-spectrometric evaluation of HLA-A*0201-associated peptides identifies dominant naturally processed forms of CTL epitopes from MART-1 and gp100
AN 1999:517157 CAPLUS Full-text
DN 132:62800
TI Mass-spectrometric evaluation of HLA-A*0201-associated peptides identifies dominant naturally processed forms of CTL epitopes from MART-1 and gp100
AU Skipper, Jonathan C. A.; Gulden, Pamela H.; Hendrickson, Ronald C.; Harthun, Nancy; Caldwell, Jennifer A.; Shabanowitz, Jeffrey; Engelhard, Victor H.; Hunt, Donald F.; Slingsluff, Craig L., Jr.
CS Department of Microbiology, University of Virginia Health Sciences Center and Cancer Center, Charlottesville, VA, 22908, USA
SO International Journal of Cancer (1999), 82(5), 669-677
CODEN: IJCNAM; ISSN: 0020-7136
PB Wiley-Liss, Inc.
DT Journal
LA English
AB Melanoma-reactive human cytotoxic T lymphocytes (CTLs) mediate tumor regression in vivo through specific recognition of MHC-associated peptide epitopes, many of which are encoded by the melanocytic tissue differentiation proteins gp100/pmel17 and MART-1/Melan-A. Vaccines using these peptides may induce protective or therapeutic immunity against melanoma. Rational design of such approaches is aided by a clear understanding of the identity of these antigenic peptides; however, most CTL epitopes described to date were identified indirectly. Especially where these peptides may be used in human clin.

trials for the treatment or prevention of cancer, there is substantial need for direct evaluation of HLA-A*0201-associated peptides from MART-1 and gp100 that are naturally processed and presented. To that end, we have isolated peptides directly from HLA-A*0201 mols. of human melanoma cells and have determined that naturally processed epitopes for HLA-A*0201-restricted, melanoma-reactive CTLs include the nonamers MART-127-35 (AAGIGILTV), gp100154-162 (KTWGQYWQV), gp100209-217 (ITDQVPFSV) and gp100280-288 (YLEPGPVT A) and the decamer gp100476-485 (VLYRYGSFSV). Among these, the one that appears to be most abundant at the cell surface is gp100154-162 (KTWGQYWQV). The others are among the less abundant peptides. HLA-A*0201-restricted CTLs from one melanoma patient who has survived metastatic disease recognized MART-127-35 (AAGIGILTV), gp100280-288 (YLEPGPVT A) and gp100154-162 (KTWGQYWQV) and were cross-reactive on longer peptides that contained these nonamer sequences. These peptides, identified by both an indirect genetic approach and by a direct peptide approach, can be used for tumor vaccine strategies with confidence that they are identical to the naturally processed peptide epitopes presented at the surface of melanoma cells in association with HLA-A*0201 mols.

RE.CNT 27 THERE ARE 27 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L11 ANSWER 29 OF 38 CAPLUS COPYRIGHT 2004 ACS on STN
TI Recombinant virus vaccination against "self" antigens using anchor-fixed immunogens
AN 1999:368523 CAPLUS Full-text
DN 131:143227
TI Recombinant virus vaccination against "self" antigens using anchor-fixed immunogens
AU Irvine, Kari R.; Parkhurst, Maria R.; Shulman, Eliza P.; Tupestis, Janis P.; Custer, Mary; Touloukian, Christopher E.; Robbins, Paul F.; Yafal, Alicia Gomez; Greenhalgh, Patricia; Suttmuller, Roger P. M.; Offringa, Rienk; Rosenberg, Steven A.; Restifo, Nicholas P.
CS Surgery Branch, National Cancer Institute, NIH, Bethesda, MD, 20892, USA
SO Cancer Research (1999), 59(11), 2536-2540
CODEN: CNREAS; ISSN: 0008-5472
PB AACR Subscription Office
DT Journal
LA English
AB To study the induction of anti-"self" CD8+ T-cell reactivity against the tumor antigen gp100, we used a mouse transgenic for a chimeric HLA-A*0201/H-2 Kb mol. (A2/Kb). We immunized the mice with a recombinant vaccinia virus encoding a form of gp100 that had been modified at position 210 (from a threonine to a methionine) to increase epitope binding to the restricting class I mol. Immunogens containing the "anchor-fixed" modification elicited anti-self CD8+ T cells specific for the wild-type gp100209-217 peptide pulsed onto target cells. More important,

RE.CNT 23 THERE ARE 23 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

AN anchor residue
1999:100586 CAPLUS Full-text

anchor residue
AU Clay, Timothy M.; Custer, Mary C.; McKee, Mark D.; Parkhurst, Maria;
Robbins, Paul F.; Kerstann, Keith; wunderlich, John; Rosenber,
Steven A.;

Bethesda, MD, 20892, USA

PB American Association of Immunologists
CODEN: JOMAS, ISSN: 0022-1707

In a recent clinical trial, HLA-A2+ melanoma patients were vaccinated with a peptide derived from the melanoma Ag gp100, which had been modified at the second position (g9-209 2M) to enhance MHC binding affinity. Vaccination led to a significant increase in lymphocyte precursors in 10 of 11 patients but did not result in objective cancer responses. We observed that some postvaccination PBMC cultures were less reactive with tumor cells than they were with g9-209 peptide-pulsed T2 cells. In contrast, g9-209-reactive tumor-infiltrating lymphocyte cultures generally reacted equally with tumor cells and g9-209 peptide-pulsed T2 cells. To investigate this difference in T cell reactivity, T cell clonoids derived from the PBMC of three patients vaccinated with g9-209 2M were compared with T cell clonoids isolated from g9-209-reactive TIL cultures. All of the T cell clonoids obtained from TIL reacted with HLA-A2+, gp100+ melanoma cell lines as well as with g9-209 and g9-209 2M peptide-pulsed targets. In contrast, only 3 of 20 PBMC-derived T cell clonoids reacted with melanoma cell lines in addition to g9-209 and to g9-209 2M peptide-pulsed targets. Twelve of twenty PBMC-derived clonoids reacted with g9-209 and g9-209 2M peptide-pulsed targets but not with melanoma cell lines. And 5 of 20 PBMC-derived clonoids recognized only the g9-209 2M-modified peptide-pulsed targets. These results suggest that immunizing patients with the modified peptide affected the T cell

RE.CNT 37 THERE ARE 37 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

AN 1998:799700 CAPLUS Full-text

IN Kawakami, Yutaka; Rosenberg, Steven A.

CODEN: USXXAM

LA English

PATENT

PI US 58

↓

56 OM WO 95

W

LV, MD,

—

AU 95

EP 75

NL: PT. SE

FT 96

US 29

79 SN

US 2003:144482 A1 20030731 20010703
 US 1994-231365 A2 19940422
 US 1995-417174 A 19950405
 WO 1995-US5063 W 19950421
 US 1998-73138 A3 19980505
 US 1999-267439 A3 19990312

AB The present invention provides a nucleic acid sequence encoding a melanoma antigen recognized by T lymphocytes, designated MART-1. This invention further relates to bioassays using the nucleic acid sequence, protein or antibodies of this invention to diagnose, assess or prognose a mammal afflicted with melanoma or metastatic melanoma. This invention also provides immunogenic peptides derived from the MART-1 melanoma antigen and a second melanoma antigen designated gp100. This invention further provides immunogenic peptides derived from the MART-1 melanoma antigen or gp100 antigen which have been modified to enhance their immunogenicity. The proteins and peptides provided can serve as an immunogen or vaccine to prevent or treat melanoma.

RE.CNT 28 THERE ARE 28 CITED REFERENCES AVAILABLE FOR THIS RECORD
 ALL CITATIONS AVAILABLE IN THE RE FORMAT

L11 ANSWER 32 OF 38 CAPLUS COPYRIGHT 2004 ACS on STN
 TI Functional dissociation between local and systemic immune response during
 AN 1998:659073 CAPLUS Full-text
 DN 130:51039

TI Functional dissociation between local and systemic immune response during
 AU Lee, Kang-Hun; Panelli, Monica C.; Kim, Christina J.; Riker, Adam I.; Bettinotti, Maria P.; Roden, Matthew M.; Fetsch, Patricia; Abati, Andrea;
 CS Rosenberg, Steven A.; Marincola, Francesco M.
 SO Dep. Transfusion Med., Clinical Center, National Cancer Inst., National Inst. Health, Bethesda, MD, 20892, USA
 DT Journal
 LA English
 AB Peptide vaccination against tumor Ags can induce powerful systemic CTL [cytotoxic lymphocytes] responses. However, in the majority of patients, no tumor regression is noted. To study this discrepancy, the authors analyzed CTL reactivity in a melanoma patient (F001) vaccinated with g209-2M peptide, a single residue variant of gp100209-217. G209/g209-2M-reactive CTL were identified in post- but not pre-vaccination PB. Limiting dilution anal. identified one predominant CTL clone (CI-35), with TCR Vβ652, recognizing g209/HLA-A*0201-expressing targets. Addnl., two autologous melanoma lines (F001TU-3 and -4) and 20 sep. tumor-infiltrating lymphocyte cultures were generated from a fine needle aspirate of a metastatic lesion

progressing after initial response to vaccination. Both F001TU did not express gp100 and were not recognized by CI-35. Loss of gp100 by F001TU correlated with a marked reduction of gp100 expression in the same metastatic lesion compared with pre-vaccination. Thus, ineffectiveness of CI-35 and tumor progression could be best explained by loss of target Ag expression. Interestingly, 12 of 20 tumor-infiltrating lymphocyte cultures recognized F001TU, but none demonstrated g209/g209-2M reactivity, suggesting a functional dissociation between systemic and local immune response. This study suggests that vaccination effects must be analyzed in the target tissue, rather than is the systemic circulation alone.

RE.CNT 36 THERE ARE 36 CITED REFERENCES AVAILABLE FOR THIS RECORD
 ALL CITATIONS AVAILABLE IN THE RE FORMAT

L11 ANSWER 33 OF 38 CAPLUS COPYRIGHT 2004 ACS on STN
 TI TCR β-chain variable region-driven selection and massive expansion of
 HLA class I-restricted antitumor CTL lines from HLA-A*0201+ melanoma
 AN 1997:401143 CAPLUS Full-text
 DN 127:134628

TI TCR β-chain variable region-driven selection and massive expansion of
 HLA class I-restricted antitumor CTL lines from HLA-A*0201+ melanoma
 AU Maccalli, Cristina; Farina, Cinthia; Sensi, Maria Luisa; Parmiani, Giorgio;
 CS Div. Experimental Oncol. D, Natl. Tumor Inst., Milan, 20133, Italy
 DT Journal
 LA English
 AB Recognition of a given melanoma antigen (Ag) involves a limited array of T cell clones bearing a structurally defined TCR. The aim here was to verify whether this information can be used to isolate and expand such antitumor effectors from fresh lymphocyte populations. The authors found that 1-3 different TCR β-chain variable (TCRBV) regions were expanded in 4-wk mixed lymphocyte-tumor cultures (MLTC) from 6 HLA-A*0201+ melanoma patients, and that the T cells expressing the expanded TCRBV regions were involved in HLA class I-restricted lysis of the tumor. T cell activation by mAbs to MLTC-selected TCRBV region and CD28 resulted in large scale expansion (1-10+109 cells) of T cell lines, highly enriched for the expression of a single TCRBV region and for CD8+ T cells. The TCRBV-driven selection was equally effective when applied to patients' or healthy donors' lymphocytes, and the T cell lines isolated from melanoma patients exerted HLA class I-restricted lysis of the autologous tumor. MLTC and TCRBV-selected lines recognized allogeneic melanomas sharing HLA-A and -B alleles with the autologous

tumor, but only 2 of the HLA-A2-restricted lines were directed to a known peptide from melanoma-associated Ags. Single-strand conformation polymorphism anal. indicated a polyclonal composition of both MLTC and TCRBV-selected lines, but expansion of clonotypes with identical CD3 length was observed only in the MLTC lines. Thus, TCRBV-driven selection can be exploited to obtain large scale expansion of antitumor CTL lines from melanoma patients.

L11 ANSWER 34 OF 38 CAPLUS COPYRIGHT 2004 ACS on STN
TI Identification of subdominant CTL epitopes of the gp100 melanoma-associated tumor antigen by primary in vitro immunization with

peptide-pulsed dendritic cells
AN 1997:119427 CAPLUS Full-text
DN 126:210701

TI Identification of subdominant CTL epitopes of the gp100 melanoma-associated tumor antigen by primary in vitro immunization with

peptide-pulsed dendritic cells

AU Tsai, Van; Southwood, Scott; Sidney, John; Sakaguchi, Kazuyasu; Kawakami,

Yutaka; Appella, Ettore; Sette, Alessandro; Celis, Esteban

CS Cytel Corp., San Diego, CA, 92121, USA

SO Journal of Immunology (1997), 158(4), 1796-1802

CODEN: JOIM3; ISSN: 0022-1767

PB American Association of Immunologists

DT Journal

LA English

AB The gp100 melanoma-assoed. tumor antigen (Ag) was selected as a model system to study the diversity of human antitumor cytotoxic T cell responses. First, peptides corresponding to dominant gp100 HLA-A2.1-restricted CTL epitopes were tested using lymphocytes from normal volunteers and an in vitro priming protocol that uses peptide-pulsed dendritic cells as APCs and IL-7 and IL-10 as immune-enhancing cytokines. High CTL activity toward both peptide-pulsed target cells and gp100+ melanoma cells was obtained with 4 out of 5 peptides tested. Second, HLA-A2.1-binding peptides from gp100 that do not appear to represent CTL epitopes in melanoma patients were also tested for their capacity to induce CTL using the in vitro priming protocol. Three of 6 peptides tested induced CTL in lymphocytes from normal volunteers. One of these peptides was also immunogenic for lymphocytes derived from a melanoma patient in remission. Because these 3 CTL epitopes were not recognized in the natural immune response in melanoma patients but do appear as immunogens when peptides are used to induce the T cell response, they may be considered as typical "subdominant" epitopes. The results are discussed in the context of the usefulness of this approach to detail the immunol. potential of a given tumor-associated Ag and its relevance for the design of effective immune-based therapies.

L11 ANSWER 35 OF 38 CAPLUS COPYRIGHT 2004 ACS on STN
TI Improved induction of melanoma-reactive CTL with peptides from

the

melanoma antigen gp100 modified at HLA-A*0201-binding residues
AN 1996:562140 CAPLUS Full-text
DN 125:219058

TI Improved induction of melanoma-reactive CTL with peptides from

the melanoma antigen gp100 modified at HLA-A*0201-binding residues
AU Parkhurst, Maria R.; Salgaller, Michael L.; Southwood, Scott; Robbins,

Paul F.; Sette, Alessandro; Rosenberg, Steven A.; Kawakami,

Yutaka

CS National Cancer Institute, National Institutes of Health, Bethesda, MD,

20892, USA

SO Journal of Immunology (1996), 157(6), 2539-2548

CODEN: JOIM3; ISSN: 0022-1767

PB American Association of Immunologists

DT Journal

LA English

AB Recognition of the melanoma Ag gp100 by tumor-infiltrating lymphocytes (TIL) in vitro has been correlated with tumor regression in patients with metastatic melanoma treated with the adoptive transfer of TIL plus IL-2. Three common gp100 epitopes have been identified that are recognized in the context of HLA-A2 by TIL from different patients: G9154 (KTWGWYQV), G9209 (ITDQVPFVS), and G9280 (YLEPGVTA). Upon stimulation with these peptides, melanoma-reactive CTL could be induced in vitro from PBL of some HLA-A2+ melanoma patients. However, numerous restimulations were required, and specific reactivity could not be generated in many patients. Therefore, to enhance the immunogenicity of gp100 peptides, amino acid substitutions were introduced into G9154, G9209, and G9280 at HLA-A*0201-binding anchor positions, but not at TCR contact residues, to increase peptide class I MHC-binding affinity. Several modified gp100 peptides bound with greater affinity to HLA-A*0201 than unmodified peptides and were recognized by TIL specific for the neutral epitopes. These peptides were used to sensitize PBL from HLA-A2+ melanoma patients in vitro using peptide-pulsed autologous PBMC as stimulators. After five weekly restimulations with either the native G9209 or G9280 peptide, melanoma-reactive CTL could only be induced from two of seven patients. However, amino acid substitutions in these peptides enabled the induction of melanoma-reactive CTL from all seven patients. These results suggest that modified gp100 peptides may be more immunogenic than the native epitopes, and may be useful in immunotherapy protocols for patients with melanoma.

L11

TI Melanoma antigens recognized by tumor infiltrating lymphocyte

AN 1995:998386 CAPLUS Full-text

DN 124:84888

TI Melanoma antigens recognized by tumor infiltrating lymphocyte

IN Kawakami, Yutaka; Rosenberg, Steven A.

PA United States Dept. of Health and Human Services, USA

SO PCT Int. Appl., 183 pp.
CODEN: PIXX02

identified. In addition, recognition of multiple epitopes in human melanoma antigen by tumor infiltrating lymphocytes, modified melanoma epitopes with improved immunogenicity, use of the improved epitopes as vaccine for treating melanoma in mammals, and use of lymphocytes sensitized to immunogenic peptides derived from melanoma antigens for therapeutically treating mammals afflicted with melanoma were demonstrated.

L11 ANSWER 37 OF 38 CAPLUS COPYRIGHT 2004 ACS on STN
 TI Recognition of multiple epitopes in the human melanoma antigen gp100 by peripheral blood lymphocytes stimulated in vitro with synthetic peptides
 AN 1995:916208 CAPLUS Full-Text
 DN 123:311939
 TI Recognition of multiple epitopes in the human melanoma antigen gp100 by peripheral blood lymphocytes stimulated in vitro with synthetic peptides
 AU Salgaller, Micheal L.; Afshar, Alireza; Marincola, Francesco M.; Rivoltini, Licia; Kawakami, Yutaka; Rosenberg, Steven A.
 CS Surgery Branch, National Institutes Health, Bethesda, MD, 20892, USA
 SO Cancer Research (1995), 55(21), 4972-9
 CODEN: CNREAS; ISSN: 0008-5472
 PB American Association for Cancer Research
 DT Journal
 LA English

Gp100 is a melanocyte lineage-specific antigen recognized by tumor-infiltration lymphocytes whose adoptive transfer has been associated with tumor regression in patients with metastatic melanoma. The peripheral blood mononuclear cells of five melanoma patients were sensitized in vitro with synthetic peptides to elicit antigen-specific cytotoxic T lymphocyte (CTL) lines against four gp100 epitopes. These epitope-specific CTL lines were generated following weekly in vitro stimulation with the synthetic decamer G10476 (V-L-Y-R-Y-G-S-F-S-V) or the nonamers G9280 (Y-L-E-P-G-P-V-T-A), G9154 (K-T-W-G-Q-Y-W-Q-V), or G9209 (I-T-D-Q-V-P-F-S-V) pulsed onto autologous irradiated peripheral blood mononuclear cells. These lines grew as long as 4 mo in culture in low-dose interleukin 2 (30 IU/mL) and exhibited antigen-specific, MHC class I-restricted lysis of peptide-pulsed T2 cells and HLA-A2+, gp100+ established melanoma cell lines. G10476- and G9280-specific CTLs demonstrated specific release of granulocyte-macrophage-colony-stimulating factor and tumor necrosis factor α in response to T2 cells pulsed with relevant peptide, as well as to gp100+ melanoma cell lines. These results demonstrate that several peptides derived from the gp100 protein are presented on the surface of melanoma cells and are sufficiently immunogenic to generate, in vitro, potent CTLs capable of cytotoxicity and the secretion of cytokines. Therefore, for HLA-A2+ melanoma patients, these and possibly other gp100 peptides could represent good candidates for antigen-specific immunotherapy either singly or in a multivalent regimen.

DT	Patent	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
LA	English					
FAN.CNT 2						
PI	WO 9529193	A2	19951102	WO 1995-US5063	19950421	
<--	WO 9529193	A3	19960104			
ES, FI,	W: AM, AT, AU, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, EE,					
LV, MD,	GB, GE, HU, IS, JP, KE, KG, KP, KR, KZ, LK, LR, LT, LU,					
SK, TJ,	MG, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI,					
	TT, UA					
IE, IT,	RW: KE, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FR, GB, GR,					
MR, NE,	LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML,					
	SN, TD, TG					
<--	US 5874560	A	19990223	US 1994-231565	19940422	
<--	US 5844075	A	19981201	US 1995-417174	19950405	
<--	AU 9523958	A1	19951116	AU 1995-23958	19950421	
<--	AU 706443	B2	19990617			
<--	EP 756604	A1	19970205	EP 1995-917151	19950421	
NL,	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, MC,					
<--	JP 10505481	T2	19980602	JP 1995-527821	19950421	
<--	FI 9604235	A	19961220	FI 1996-4235	19961021	
PRAI	US 2003144482	A1	20030731	US 2001-898860	20010703	
	US 1994-231565	A	19940422			
	US 1995-417174	A	19950405			
	WO 1995-US5063	W	19950421			
	US 1999-267439	A3	19990312			
OS	MARPAT 124:84888					
AB	<p>The present invention provides a nucleic acid sequence encoding a melanoma antigen recognized by T lymphocytes, designated MART-1. This invention further relates to bioassays using the nucleic acid sequence, protein or antibodies of this invention to diagnose, assess or prognose a mammal afflicted with melanoma or metastatic melanoma. This invention also provides immunogenic peptides derived from the MART-1 melanoma antigen and a second melanoma antigen designated gp100. This invention further provides immunogenic peptides derived from the MART-1 melanoma antigen of gp100 antigen which have been modified to enhance their immunogenicity. The proteins and peptides can serve as an immunogen or vaccine to prevent or treat melanoma. In example, cytotoxic T lymphocytes and culture of cell lines were prepared, immunogenic epitopes of MART-1 were characterized, and a second human melanoma antigen recognized by tumor infiltrating lymphocytes associated with in vivo tumor rejection was also</p>					

L5 0 SEA PLU=ON L4 AND PD<=20000320
 L6 47 SEA L3
 L7 0 SEA PLU=ON L6 AND PY<=2000
 L8 47 SEA L3
 L9 0 SEA PLU=ON L8 AND PY<2001
 L10 FILE 'CAPLUS' ENTERED AT 14:23:40 ON 25 MAY 2004
 L11 74 SEA PLU=ON L2
 38 SEA PLU=ON L10 AND PY<2001
 D L11 L1-38 TI,BIB,ABS

FILE HOME

FILE REGISTRY

Property values tagged with IC are from the ZIC/VINITI data file provided by InfoChem.

STRUCTURE FILE UPDATES: 24 MAY 2004 HIGHEST RN 685504-43-2
 DICTIONARY FILE UPDATES: 24 MAY 2004 HIGHEST RN 685504-43-2

TSCA INFORMATION NOW CURRENT THROUGH JANUARY 6, 2004

Please note that search-term pricing does apply when conducting SmartSELECT searches.

Crossover limits have been increased. See HELP CROSSOVER for details.

Experimental and calculated property data are now available. For more information enter HELP PROP at an arrow prompt in the file or refer to the file summary sheet on the web at:
<http://www.cas.org/ONLINE/DBSS/registryss.html>

FILE CAPLUS

Copyright of the articles to which records in this database refer is held by the publishers listed in the PUBLISHER (PB) field (available for records published or updated in Chemical Abstracts after December 26, 1996), unless otherwise indicated in the original publications.
 The CA Lexicon is the copyrighted intellectual property of the American Chemical Society and is provided to assist you in searching databases on STN. Any dissemination, distribution, copying, or storing of this information, without the prior written consent of CAS, is strictly prohibited.

FILE COVERS 1907 - 25 May 2004 VOL 140 ISS 22
 FILE LAST UPDATED: 24 May 2004 (20040524/ED)

L11 ANSWER 38 OF 38 CAPLUS COPYRIGHT 2004 ACS on STN
 TI Recognition of multiple epitopes in the human melanoma antigen gp100 by tumor-infiltrating T lymphocytes associated with in vivo tumor regression
 AN 1995:497876 CAPLUS Full-text
 DN 122:263119
 TI Recognition of multiple epitopes in the human melanoma antigen gp100 by tumor-infiltrating T lymphocytes associated with in vivo tumor regression
 AU Kawakami, Yutaka; Eliyahu, Siona; Jennings, Christopher; Sakaguchi, Kazuyasu; Kang, Xiaoliang; Southwood, Scott; Robbins, Paul F.; Sette, Alessandro; Apella, Ettore; Rosenberg, Steven A.

CS Surg. Branch, Nat. Inst. Health, Bethesda, MD, 20892, USA
 SO Journal of Immunology (1995), 154(8), 3961-8
 CODEN: JOIMA3; ISSN: 0022-1767
 PB American Association of Immunologists
 DT Journal
 LA English
 AB Four of ten HLA-A2-restricted melanoma specific CTL that were derived from tumor-infiltrating lymphocytes (TIL) and administered to patients recognized the gp100 melanoma Ag and nine of ten recognized the MART-1 Ag. Adoptive transfer of the four gp100-reactive CTL, but not the other TIL, resulted in tumor regression when infused into autologous patients along with IL-2. Tumor regression was thus correlated with the recognition of gp100 by the administered T cells. To identify the epitopes recognized by these four gp100-reactive CTL, 169 peptides containing HLA-A2.1 binding motifs were synthesized and screened for their recognition by TIL using cytotoxicity and IFN-γ release assays. Five gp100 epitopes (two for TIL620, three for TIL550, one for TIL1143, and two for TIL1200) were recognized by CTL derived from different patients. Five of eight HLA-A2 binding melanoma epitopes (five gp100, one MART-1/Melan-A, two tyrosinase) had intermediate binding affinity to HLA-A2.1. These gp100 epitopes may be responsible for mediating tumor rejection in vivo and thus may be useful for the development of immunotherapies for patients with melanoma.

=> d his full

(FILE 'HOME' ENTERED AT 14:13:54 ON 25 MAY 2004)

FILE 'REGISTRY' ENTERED AT 14:14:28 ON 25 MAY 2004

0 SEA PLU=ON A[SFGMALHI][FSVTI]DQVPFSV
 47 SEA PLU=ON A[SFGMALHI][FSVTI]DQVPFSV/SQSP
 47 SORT L2 1- SQL A
 47 SEA L3

L1
 L2
 L3
 L4

This file contains CAS Registry Numbers for easy and accurate substance identification.

```
=> logoff
ALL L# QUERIES AND ANSWER SETS ARE DELETED AT LOGOFF
LOGOFF? (Y)/N/HOLD:Y
COST IN U.S. DOLLARS
TOTAL
SESSION
FULL ESTIMATED COST
150.86
DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)
TOTAL
SESSION
CA SUBSCRIBER PRICE
26.33
-
STN INTERNATIONAL LOGOFF AT 14:25:50 ON 25 MAY 2004
```